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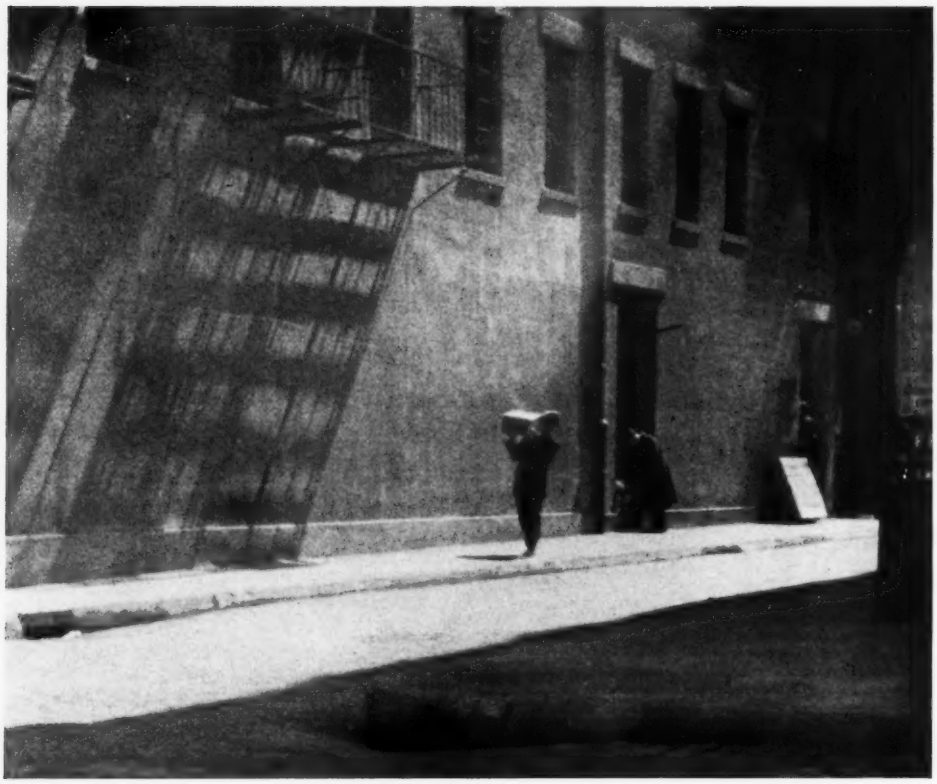

THE SUNFLECKED WALL

WILLIAM L. WOODBURN

1924, FREDERICK & NELSON SALON, SEATTLE AND MONTREAL; 1925, FORT WAYNE, NEW YORK (PICTORIAL PHOTOGRAPHERS) AND NEW WESTMINSTER; 1926, PORTLAND, MAINE AND SEATTLE (CAMERA CLUB); 1927, CROYDEN (ENGLAND) AND DUBLIN (IRELAND); 1928, SYRACUSE SALON.

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The American Journal of Photography

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Vol. LXI **JULY, 1928** **No. 1**

Why I Am a Pictorial Photographer

(Number Three)

WILLIAM L. WOODBURN

I AM a pictorial photographer, first of all, for the sheer love of the thing, although it is doubtless the natural sequel to my earlier adventures as one of the great army of "snapshooters". Like the majority of amateurs, my first camera was of the box type, and after each half-dozen exposures I hied myself to the nearest "finisher" (please, Mr. Editor, don't kill the pun!) and anxiously awaited the results. Later I joined the Newark Camera Club, learned to do this work myself, and soon thereafter attempted my first enlargements. In true Scottish fashion I utilised the whole negative, appreciating not the value of trimming, and having but a meager knowledge of composition, balance, unity, and the other essentials of a perfect picture. I also realise now, as I did not then, that my technique was abominable. Fortunately, however, the criticisms of the members were constructive; and upon following their advice, a marked improvement resulted in my work.

Acting on the suggestion of Henry Hall, one of our prominent pictorial workers, I submitted, in 1924, half a dozen of my prints to the Portland (Maine) salon. I shall never forget the satisfaction I felt upon receiving the catalog to find that three of them had passed the jury and been accepted. My record for the year was twelve acceptances at seven exhibitions, and I have been a fairly consistent contributor to the various salons each year ever since.

To the fellow who would create pictures, yet lacks the ability to express his ideas on canvas, photography is a real blessing. Few of us have the time, and fewer the talent, ability, and patience, to master the brush or crayon; and so, with an impulse toward the creation of pictures, we have turned to the camera as our medium of expression, and in this manner have absorbed, in a degree at least, pictorialism.

It has been aptly said that "the salon has lifted photography from the realm of chemical curiosity and placed it among the graphic arts".

A knowledge of chemistry is, of course, essential to good work in photography; but I have found it unwise and unnecessary to lose myself in a maze of formulæ and figures to obtain satisfactory results. It is essential, of course, that every pictorial worker should build up his technique through familiarity with the chemicals which he uses, but only as a means to improvement of his work technically as well as pictorially.

The salons first brought to me a realisation of the possibilities of photography, and, through participation in them and association with others similarly inclined, I learned that the camera is capable of making *pictures*. I soon learned, also, that one's work is right or wrong as it happens to strike "the other fellow"; that the acceptance or rejection of one's prints at any salon is not necessarily indicative of their worthiness to be shown at some other. Prints of mine have been accepted at salons of the highest standing, whose requirements are considered pretty "stiff", yet rejected at those of lesser importance, due to difference of opinion on the part of the judges. There is little doubt that one is influenced to continue or cease altogether his activities along pictorial lines—at least, in so far as the salons are concerned—in proportion to the success attained in this particular field. All who have traveled the road have experienced the same thrill of success or sting of disappointment; but the good sportsman is he who sticks, and determines that a turn-down or two is not defeat, but rather a challenge to his

ability to produce, adding to the zest of the game and making it the more attractive through its very uncertainty.

I am a pictorialist because of its fascination. The search for worth-while pictures takes me into open fields and along pleasant pathways; it develops an appreciation of the beautiful and a love for the great outdoors, with its wealth of form and color in the ever-changing play of sunlight and shadow. It broadens my outlook and knowledge, and increases my ability to create; and the satisfaction of producing now and then a real picture is ample compensation for the time, effort, and money expended in the pursuit of this delightful avocation which offers so much in genuine satisfaction.

The Fifteenth Pittsburgh Salon

M. W. WALL

THE Fifteenth Annual Pittsburgh Salon of Photographic Art opened on March 17 and continued until April 15, in the Galleries of the Carnegie Institute. It was one of the most successful exhibitions ever held in the famous building, the gift of Andrew Carnegie to the people of the City of Pittsburgh. Widespread interest was evidenced by the number of contributions, some 1,500 prints being received. Twelve foreign countries were represented, with twenty-seven prints. Three hundred and thirty prints were accepted for the 1928 Salon.

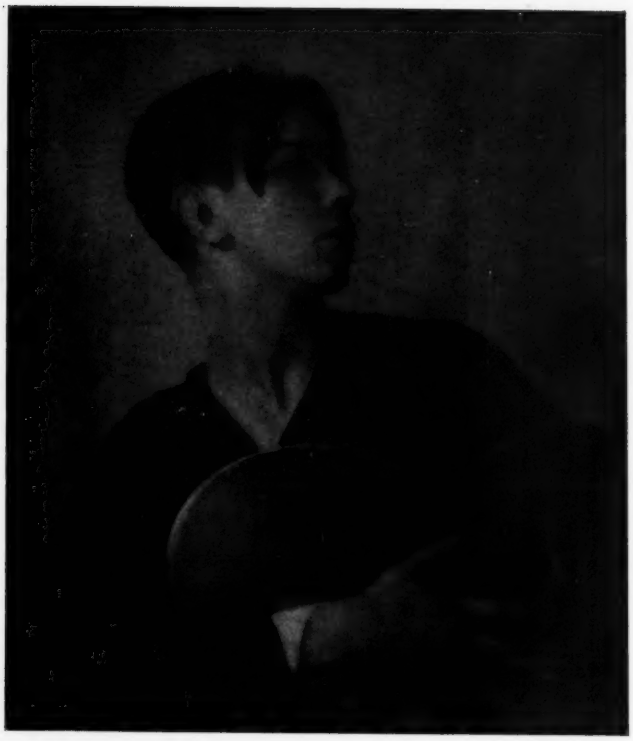
The jury, composed of Nicholas Haz, Paul Weirum, and Holmes I. Metee, had a busy two-day task in judging the prints. As the result of their efforts we had a very well-balanced show. The four-print men are rather scarce, only five men being accorded the honor, in addition to the jury, who were invited by the Salon to hang four prints each. The Cleveland Camera Club visited the show in a body, and were well pleased with the exhibition. About 11,000 people visited the Salon, and approximately seventy-five prints were sold.

Bromoil seemed to be the favorite medium of

THE MOORING-PLACE — GEORGE H. MORSE

FIFTEENTH PITTSBURGH SALON

ROOFS OF GUEDLINBURG
KENNETH D. SMITH
FIFTEENTH PITTSBURGH SALON



INTERLUDE EDWIN BOLAN

FIFTEENTH PITTSBURGH SALON

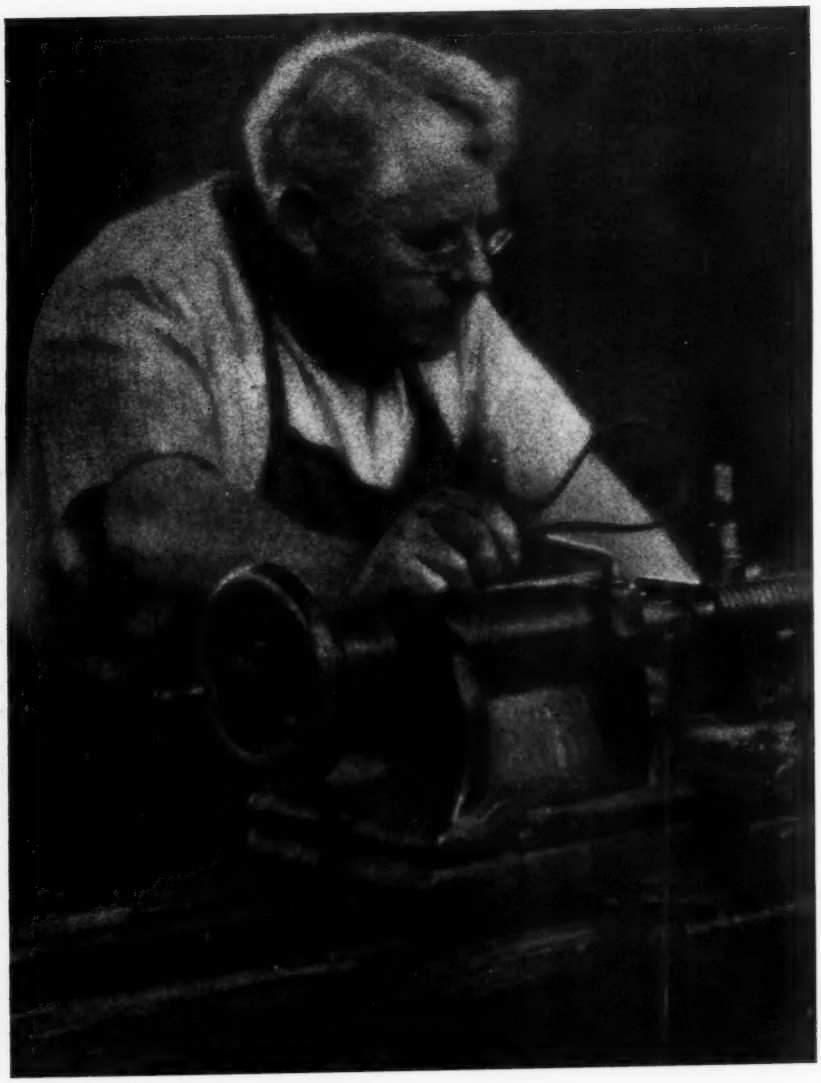
the exhibitors, with splendid examples by Dr. Chaffee, Charles K. Archer, George Morse, and David and Eleanor Craig. Carbon and Fresson prints were also well represented. Of the unusual subjects which attracted considerable attention were "Paper-Study", by Hiromu Kira, and "The Wire", by Kota. Gordon H. Coster of Baltimore worked out a combination of the kitchen-sink and spigot together with a strainer and pan. "Jazzmania", by J. W. Caldwell of Honolulu, a negative-print, attracted a great deal of attention. Hilary G. Bailey of Indianapolis represented the futuristic school with a head, the planes of which were worked out in the usual triangular form. Frank Drtikol of Czechoslovakia, with Nicholas Murray, were among the contributors of prints in the nude which were very well handled and well posed.

A beautiful snow scene by B. D. Conheim of the Chicago Camera Club, "When Winter Rules", done in high key, was a pleasure to the eye. Another snow-print was "Shade and Light", by T. Mukai of Los Angeles, in which the sparkle of sun on a snow-drift was pleasingly combined with shade. Walter Jarret of Pittsburgh exhibited three prints of attractive children, done with artistic skill. In the children's group were also Professor R. Koppitz of Vienna, with "Maedchengruppe", and Miss Laura Gilpin, with a lovely platinum print of two little girls in a garden of iris. Edwin Bolan, Hinsdale, Ill., caught the spirit of yearning youth in his "Some Day", a farmer lad leaning on a hoe. A. D. Brittingham shows us a sweet little girl and a candy jar.

"A Morning in Venice", by Giulio Corinaldi, Torino, Italy, and "Santa Maria Della Salute, Venice", by Lionel Wood, Brighton, England, are representative prints showing the beauties of the famed canals of this spot.

Lilies came in for attention, with "The Lone Lily" and "Panel Design", by C. Frankenberger of Chicago, and "The Lonely Lily", by J. Kraysler of New York City.

THE CABBY
A. T. ROBERTS
FIFTEENTH PITTSBURGH SALON



PRECISION
DAVID AND ELEANOR CRAIG
FIFTEENTH PITTSBURGH SALON

"Still-Life", a series of white china bowls by Johnson of Greenfield, Mass., and "On the Laboratory Shelf", showing a combination of chemical glassware, by L. P. Tabor of Philadelphia, Pa., show expert handling of very difficult subjects.

Paul Weirum's studies of horses, chickens, and ducks, are beautifully handled, and are prints of wonderful quality.

The only print in the show of man's best friend, a beautiful head of a police dog, is called "Buddy", by John Skara of the Chicago Camera Club. H. M. Vernon's "Souvenir", a memory of Gloucester's docks, and Thurman Rotan's "Breakwater" are two examples of water and boats combined with a pleasing effect.

George H. Morse (Pittsburgh's only four-print man) submitted the "Wayside Cottage", a bromoil filled with mysterious romance. "The Mooring-Place", by the same artist, and "Morning" by Gotshall, are river-scenes of more than ordinary merit.

Nicholas Haz submitted four cloride prints of group figure-studies beautifully gold-toned. Joseph V. Dorin of Chicago, with "The Dancer in Bronze", toned in green, and "Decoration", by William Mortensen of Hollywood, show decorative figure-design.

"Nocturne," by J. H. Mackay of Toronto, and "Carthay", by Fred Archer of Los Angeles, give us vistas of cities with wonderful cloud-effects.

Isamu Yasuda of Los Angeles presents a departure with bromoil transfers on artist's canvas which produces a pleasing composition.

Holmes I. Metee of Baltimore has several genre-studies of artistic value.

THE DORYMAN — JOHN ALLEN

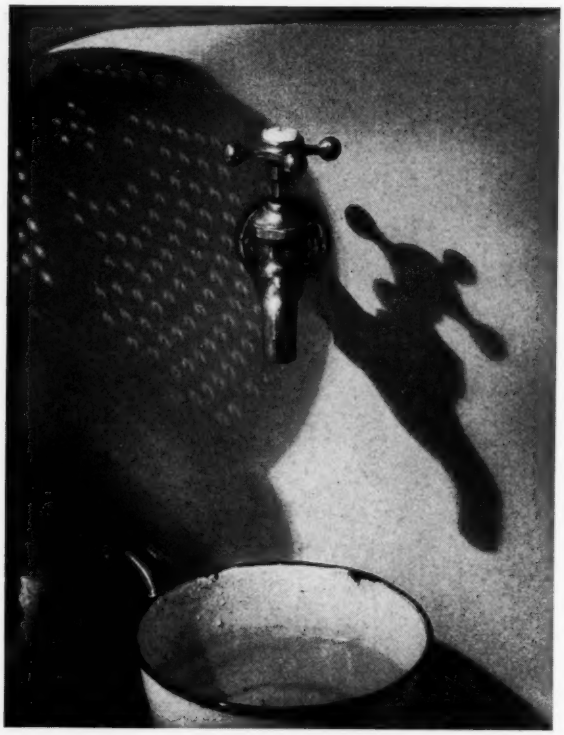
FIFTEENTH PITTSBURGH SALON

From far-off Japan comes "View in the Suburbs", by Bosen Perada, which shows a garden covered with parasols which seem to be in motion.

Richard Dooner of Philadelphia has three miniature portraits of artistic subjects.

Paper-negatives come in for a share of credit, for with this medium O. C. Reiter of Pittsburgh has produced a lovely landscape with great carrying power.

The officers of the Salon this year are Charles K. Archer, president; David R. Craig, vice-president; B. H. Chatto, secretary and treasurer. They were ably assisted by the Print Committee, consisting of George H. Morse, chairman, Thomas M. Jarret, and F. O. Van Gorder, members.



THE SPIGOT AND THE SHADOWS GORDON H. COSTER
FIFTEENTH PITTSBURGH SALON

Home-Made Photographic Equipment

J. E. BULLARD

THERE are three types of people who make photography a serious hobby. There is the person who is intensely interested in the chemistry of photography. He is always trying new kinds of developers, different kinds of emulsions, and making all sorts of chemical experiments with photographic material. He depends more upon what he does, after making the exposure, than in having the exposure just right.

Then there is the person with the artistic temperament. He is not so much interested in photography, in the exposure of the negative and the development, as he is in obtaining artistic effects. He is inclined to be most interested in those printing-processes that give him the freest hand in getting the effects he desires. The final print he produces may not be very much like the negative. It is artistic effects he is after, and photography is used not altogether as a means but rather as an aid.

Neither of these types of person is going to be very greatly interested in home-made equipment; but the third type is. He is the man with a mechanical turn of mind. He is interested in shutters, lenses, and the mechanical equipment. He is likely to exert a great deal of care to make exactly the correct exposure; but when it comes to developing and printing, he may not even bother to mix his own chemicals. He buys his developer ready mixed in tubes, and his fixing-solution in packages. He uses but two or three kinds of plates at the most, and probably

THE CIGARETTE
L. H. LONGWELL
FIFTEENTH PITTSBURGH SALON

never uses more than two or three kinds of paper.

Any manipulating he does is truly mechanical rather than chemical or art-work. He strives to have the mechanical part perfect. He is interested in all sorts of trick-photography, in devices that can be used in connection with photography, in lights, and in all else of a mechanical nature.

Everyone, of course, does not fall clearly into one of these classes, but everyone has a strong leaning toward one of them; and anyone who has not a strong mechanical leaning is probably making a mistake to bother with home-made equipment. On the other hand, if he can handle tools handily, if he has a little workshop in his cellar, he can make many things that will serve the purpose as well as a similiar device or apparatus he might buy.

One of the things that everyone has to have sooner or later, if he does his own work, is an enlarging-machine. If he sells his prints, and his camera is smaller than eight by ten, he must enlarge in order to make the largest possible number of sales.

Reduced to its lowest terms, an enlarger is a light-box, a camera, and an easel. The light-source may be an incandescent electric light in a reflector, with a ground-glass screen or opal glass to diffuse the light. Such a light-source will give perfect results, provided the reflector is of the proper design. However, with a given reflector, only one size and type of lamp is suitable; that is, the one for which the reflector is designed. A different size or type will give a different illumination-curve and perhaps not illuminate the plate evenly.

Since home-made devices are rarely used to the extent where a high degree of efficiency makes much difference in the monthly lighting-bill, it is perfectly practical to sacrifice efficiency in order to gain more versatility. Besides, the maker of home-made devices is not likely to have the instruments necessary to test reflectors and make sure that the illumination is really uniform. The only test he can make, as a rule, is actual use.

For such reasons as this, it may prove much more satisfactory to fall back upon indirect lighting in making the light box. In this system, a wooden box lined with asbestos will do. A better way, however, is to use a sheet-metal box or make one out of sheet-iron, preferably galvanized iron.

Four lamps will be needed, and the size of the box is determined by the size of the lamps to be used and the size of the negatives to be enlarged. For small lamps and small negatives, an old bread or cake box may serve the purpose admirably.

For larger negatives and lamps a larger box will be needed. Usually, one will want to use lamps of the 100-watt, the 150-watt, or the 200-watt size. Four 150-watt lamps can be used on an ordinary light-circuit, provided no other lights are being burned on it at the time. Four 200-watt lamps are likely to blow the fuse, and it is better to run a special circuit for them.

If a sheet-metal box already made is being used, then the light-sockets are attached to the shortest sides and as near the bottom as they can be, and still leave room for the lamps to be used. A hole is cut in the bottom the size of the largest negatives to be enlarged. The long side of this hole should be crosswise of the box. Along the long sides of this rectangular hole are soldered or riveted pieces of sheet metal that go to the sides of the box and extend up high enough so that no part of a lamp in a socket can be seen when looking through the hole from the outside.

The entire interior of the box is then given two or three coats of aluminum paint. The aluminum paint not only serves to help reflect the light, but helps to diffuse it. A hole should be cut near the bottom of the box, and another near the top to serve as sources of ventilation. The bottom holes should be near the lamp-sockets. One way is to cut two holes on each end large enough so that the neck of the lamps will go through, and mount the sockets on boards outside the box, these boards being attached to the box in a firm manner. This makes it possible to use a considerably smaller metal box and serves the purpose of ventilation as well. If a bread or cake box is used, there will be ventilation-holes near the top, and these will serve as the outlet for the air-currents set up by the heat of the lamps.

Because it is easier to obtain satisfactory ventilation when the light-box is at the top, it is better to build the enlarger in the form of a vertical enlarger. In the vertical form there is far less danger of the heat drying out the camera-bellows and causing it to crack.

This light-box, after it is completed, and especially if it is used on a vertical enlarger—merely being placed at the top of the apparatus and not fastened permanently in place—can be used for other light-purposes. Turned over with the opening at the top, it becomes a fine source for contact prints. Just attach a printing-frame over the opening, and one has a printing-machine.

If artificial light is needed to light some part or all of a subject being photographed, then this light-box may be brought into use for that purpose. Place it on a chair or a low step-ladder, and it helps to illuminate the subject. It may even be held in the hands and moved

THE LUMINOUS GLOBE — IDA W. PRITCHETT
FIFTEENTH PITTSBURGH SALON

around to spray the light over different parts of a room that is being photographed. In fact, it becomes a source of light that one will be able to use for many purposes.

This is one thing that it is well to consider when making home-made apparatus. Each part should be so made that it can be used for as many other purposes as possible. When one is designing and making his own apparatus, he can readily keep in mind the different uses to which he can put each part.

The bellows-length that will be needed and the height the negative will have to be above the easel can be figured from the formulæ; the lens-to-the-easel distance equals the focal length of the lens used multiplied by the number of times the negative is to be enlarged, plus one. The lens-to-the-negative distance is equal to the lens-to-easel distance divided by the times of enlargement. Of course, the negative-to-the-easel distance which will determine the distance the camera must be above the easel—that is, the negative-holder of the camera—is the sum of these two distances.

If the bellows-extension of the camera is not long enough, then it will be necessary to build an extension, which can easily be done with sheet metal or thin wood. It is just a matter of making a box open at the two ends, one end of which fits the back of the camera while the other carries the negative-holder. If the bellows is long enough, then all that is necessary to use the camera as an enlarger is to remove the ground-glass from the back, that is from the ground-glass carrier, cut out the dividing partition in an old plateholder—an old leaky holder may serve the purpose perfectly—place the negative in the plateholder, the camera-back up against the light-box, and insert the plateholder just as one would if he was making a picture. If one inserts a ruby glass in the upper side of the holder, he can focus on the bromide paper, then turn off the light, remove the plateholder, take out the ruby glass, and put back the plateholder.

The easiest way to elevate the camera above the easel is to use an old table for the easel. A kitchen table will serve the purpose very well. Then fasten an upright firmly to one side of the table, making sure that this is exactly at right angles to the table-top. Use another upright to support the camera, and have this slide upon the first one so that the camera can be raised or lowered. Since the light-box will be rather heavy, these uprights should be strong, and the upper one should have arms fastened to it upon which the light-box may rest. Any light-leakage that may be found, may be stopped by using black paper or cardboard as baffles to cut it off.

The enlarger may be used in any room that is darkened. It also may be used as a very satisfactory copying-frame. When used for this purpose, it will be necessary to stand on the table to focus the camera sharply on the picture to be copied. The light-box is now used to throw a uniform light on the picture. If the copying is done in a darkened room, once the correct exposure is found for different distances between lens and object and at different stops, it is only a matter of making up a table and using it in the future to be certain that all exposures will be absolutely correct. The position of the light-box for these different exposures, must be marked so that the intensity of the light will not vary.

In addition to having a combination enlarging and copying machine, we have made a light-box that can be used for a great many different purposes. The material used has been an old bread-tin, or a sheet-metal box large enough for the purpose and with a hinged cover; an old table, either an old kitchen-table or some other table that is strong enough to bear one's weight and has a sufficiently large top; four sockets, a switch, some wiring, and a few pieces of wood. The total cost amounts at the most to but a few dollars, and yet perfect enlargements can be made and copying-work can be quickly and accurately done. In addition, the light-box serves as the vital part of a printing-machine. In fact, a rather elaborate machine may be built in such a way that the light-box may be slid in or out of it.

Working along these lines of using the material that is available and so constructing each part that it may be used for as many other purposes as possible reduces the time and cost of making home-made equipment, because the material costs less; and with parts of one piece of equipment interchangeable with other equipment, not so many parts have to be built. This is a method of building that the home-made equipment maker may profitably keep in mind whenever he is making any equipment.

Wide-Angle Work with the New Zeiss Proxars

JAMES LEE

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WHEN the principal of the Bay Ridge Evening High School requested me to make some classroom-pictures for the recent educational exhibit at Madison Square Garden, I realised that I was confronted with a rather difficult problem. All my previous school-pictures had been confined to idealisations of my Alma Mater by photographing the lighted school building for moonlight-effects, a process which I hope to present in a future article. My only camera at that time consisted of an Ica Trona, size 3¼ x 4¼, and fitted with a Carl Zeiss Tessar F/4.5 lens of 13.5-cm. focal length (5½ inches). The combination, then, gave a maximum angle of view of about 45 degrees on the long side of the plate. I tried to explain the difficulties involved in getting sufficient working-distance in confined quarters, lens angles, wide angles, narrow angles, and so on, all of which he dismissed with a wave of his hand. "You can do it, Lee, if anyone can. When will you be able to start?" "Next Monday", I replied, not without some misgivings. That was Thursday.

Next day, Friday, I hopped over to Carl Zeiss, 485 Fifth Avenue, New York City, at noontime, and asked about wide-angle lenses. They inquired what kind of camera I had, and when I told them, they shook their heads and said that it couldn't be done, because the only wide-angle lens that could be properly used on such a camera would have part of its view obstructed by the camera-bed, which could not be dropped on the Trona, and the next larger size gave rather too narrow an angle. The price, too, was more than I wanted to pay for this particular piece of work. Then I was introduced

FIGURE 1 PHYSICS CLASS JAMES LEE

Made with two No. 2 Proxars. Note edge vignetting at corners

FIGURE 2 MILLINERY CLASS JAMES LEE

Made with one No. 2 Proxar. Note distortion at edge caused by tilting camera

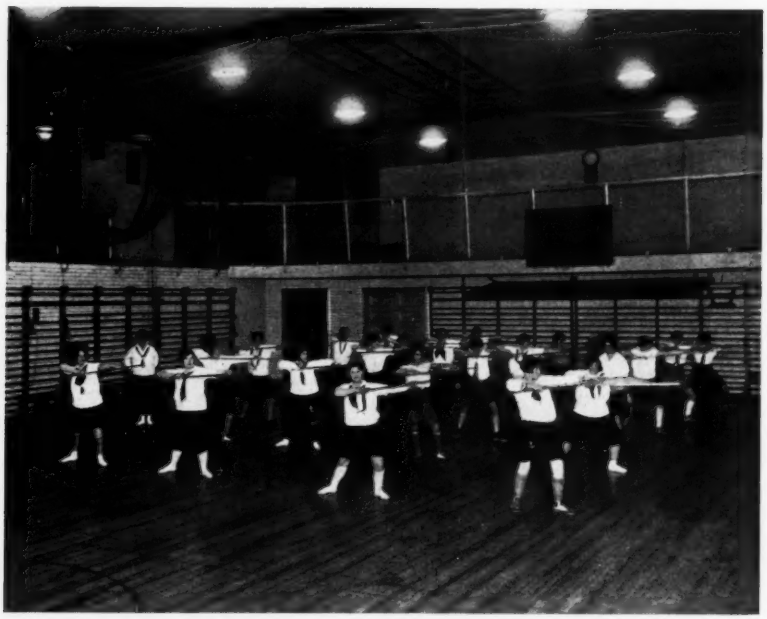

FIGURE 3 GYMNASIUM CLASS JAMES LEE

Made with one No. 2 Proxar. Note complete absence of apparent distortion

FIGURE 4 MECHANICAL DRAWING CLASS JAMES LEE

Note complete absence of edge distortion with one No. 2 Proxar

to the new Proxar lens, the complement of the Distar, the merits of which latter have been ably set forth in PHOTO-ERA MAGAZINE by L. J. Creegan.

The Proxar, I found, is merely a supplementary lens, costing about four dollars, and which slips on the regular lens in the same manner as a Distar, its purpose being to shorten the focus. The Proxar recommended was marked 2/III, or, as I called it after the familiar designation used in the "cluck and soot" trades, *two—line—three*. The roman numeral III designates the diameter of the lens-barrel with which it is to be used, and which is standard in the Zeiss works; and the Arabic number before the line denotes its power in terms of diopters. This is an optometrist's term, one diopter being equivalent to 1 meter. The Proxar 2, I found, had a focal length of ½ meter, not 2 meters, as might be supposed. Accordingly, a Proxar 0.5 would have a focal length of 1/0.5, or 2 meters. You must divide 1 by the fractional, or numerical, name, in order to arrive at its focal length in terms of photographic optics. Standard diameters of the Proxars, I found to be as follows:

Name or Number	*Outside Diameter of Lens-Barrel*
/C_o	27.0 mm.
/C_o*	28.5 mm.
/C_{oa}	29.8 mm.
/II	32.0 mm.
/III	36.8 mm.
/IV	41.8 mm.
/VI	50.9 mm.
/VII	56.9 mm.

The number 2 Proxar would reduce my 13.5-cm. lens to 10.5 cm., according to the table furnished with the lens. For the benefit of those who may wish to work it out, each for his own lens, an optical formula states that to find the focal length of a supplementary lens it is necessary to reduce or increase the focal length of a given lens, multiply the focal length to be altered by the focal length desired, and divide the product by the original focal length less the final focal length. In other words, when

f_2 is the focal length of the supplementary lens desired;
f_1 is the original focal length of the main lens;
F is the final focal length of the system;

then

$$f_2 = \frac{f_1 \times F}{f_1 - F}$$

FIGURE 5 BIOLOGY CLASS TAKING EXAMINATIONS JAMES LEE

No edge distortion apparent. Note remarkable depth of field

To reduce the focal length, use a positive lens. To increase the focal length, use a negative lens, and calculate it as minus in the formula.

Consulting a table of lens-angles—see PHOTO-ERA MAGAZINE for May, 1928—I found that a 10.5-cm. lens on 3¼ x 4¼ would include an angle of approximately 55 degrees, the reduction having been 13.5–10.5, or 3 cm., about one-fourth. Fine, I concluded. Then why not add another Proxar, and further reduce this 10.5 cm. by another fourth, the whole thing being a sort of arithmetic series, or chain-discount proposition? Well, I did put another No. 2 Proxar on, and it widened the angle considerably, but not in arithmetic series ratio. The effect of the Proxars is additive—that is, if one Proxar reduces the focal length 3 cm., two Proxars will reduce the original focal length by 6 cm., or about fifty per cent., in round numbers. Well, that left a remaining effective focal length of 13.5–6, or 7.5 cm., including an angle of about 70 degrees on the long side of the plate, which was just about wide enough to miss the edge of the camera-bed. As there is a choice of four powers, *i.e.*, 0.5, 1, 1.5, and 2 diopters, various combinations may be tried to suit the individual needs.

That night, I shot several empty classrooms with a small automatic Caywood flashlamp, for the sake of the practice. I had the assistant principal along, to see that I didn't blow the place to smithereens, and he suggested that I shoot some live game for a change, whereupon I took several shots at the Physics, Millinery, and Domestic Science classes, using the two No. 2 Proxars on the Physics and Domestic Science classes, and a single No. 2 Proxar on the Millinery class.

I discovered that focusing was astoundingly easy, and well it might be. Using the single No. 2 Proxar, F/4.5 became F/3.7, and with two No. 2 Proxars in superposition, F/2.7 became the effective aperture. With one Proxar, F/16 became F/12.5, F/32 became F/25, and F/45 became F/35. With the two No. 2 Proxars, F/16 became F/9, F/32 became F/18, and F/45 became F/25. Naturally, this permitted more than the usual amount of stopping down. I followed instructions to focus on the nearest principal object—the first time only. Once focused, I discovered that it was useless to refocus separate shots, which were all of practically the same distance; and so I merely squinted the field of view through the iconometer finder, a truly wonderfully device that apparently does everything except calculate the exposure. I found that it is better, if a choice has to be made, to have the foreground figures sharply defined, rather than out of focus for the benefit of the background. Actually, the focal point for the greatest depth of focus may be found as follows:

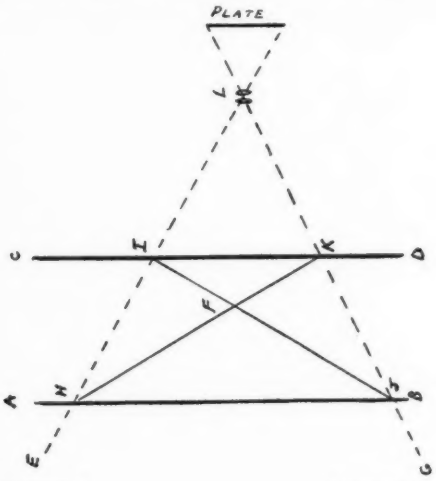

FIGURE 6 JAMES LEE

Suppose we desire to focus for equal definition of planes A B and C D as limits, the angle E L G being the lens-angle of view. Draw H K and I J, and the plane of point F where they cross is the correct point to focus upon. Depth of field may then be computed for the proper stop by means of the formula

$$H = \frac{100\ F^2}{12 \times F}$$

when

H = hyperfocal distance in feet
F = the F/- number of the lens (effective aperture)

Substitute for H the distance between the planes which we desire to sharply define, and solve for F.

Upon developing the negatives, I was greatly disappointed to find that a considerable area of the margins was vignetted out of each picture on which two Proxars had been used. This vignetting of the margins was caused by the extra long barrel formed by the mountings of the Proxars, and it showed that two Proxars cannot be used together, unless the original lens is mounted extremely compactly—as compactly, at least, as a wide-angle lens proper. In the first illustration, showing the Physics class, the lack of detail in the two upper corners clearly shows the effect of edge vignetting by the use of two Proxars. Even so, the picture as a whole is quite passable, and the defect would

not usually be detected unless attention had been called to it. The stop used was the marking F/22 of the Tessar, which is equivalent to F/12.2 with the two Proxars, or F/17 with a single Proxar. This same stop was used in all the other shots.

Tilting the camera up or down may produce a grotesque effect, suggesting a speed-picture of the building being caved in by an earthquake. Hence, the camera should be kept strictly level. This freak is partly apparent in the Millinery class picture, Illustration No. 2, which was made with a single Proxar. Note, however, that in this, and in the others, all edge vignetting is completely absent, evenness of illumination having been gained by over-exposure and slight shortening of development.

The ideal conditions under which the Proxars may be fairly used is shown in the Gymnasium picture, Illustration No. 3. Here most of the straight lines are confined to the center of the picture. Best results may be obtained by choosing a viewpoint which will not show vertical lines near the margins; but if this is unavoidable, they may be straightened by considerable stopping down. This illustration also emphasises the need of refocusing for a more distant scene. Sighting through the iconometer with the rack and pinion locked at ten feet is so ridiculously simple that one is apt to become careless, an out-of-focus picture such as the Gymnasium illustration being the result. The Mechanical Drawing class, Illustration No. 4, is a composite of all the good qualities of the Proxar, but even this would be the better for a little more diaphragming down.

Technical wide-angle work is not the limit of the Proxars, by any means; for often it is necessary to work uncomfortably close to the subject, even in pictorial work. A good example of this is the Little Church Around the Corner, in New York City, where the proximity of high buildings necessitates shooting from across the street, a matter of no more than about fifty feet. In this, and similar cases, a Proxar would save the day. In fact, I have just heard that Mr. Creegan has had "one hung" at the recent Brooklyn Institute show, and he informs me that a Proxar did the trick. Panoramic views and large groups, mountain ranges, scenes in city-streets—in short, all work demanding a moderate shortening of focus to include the necessary angle—indicate the use of a Proxar.

Copying with a single-extension camera has heretofore been impossible, owing to the inability of the camera to focus at short range, because of the lack of sufficient bellows draw. The Proxar, however, so shortens the focal length of the lens that exceedingly close working to the subject is permissible.

The Proxar may also be used as a portrait attachment, but here is where I rebel. Not any short-focus portraits for me! Doubtless, however, pictures of people with regular features would not show any appreciable distortion; but this is a matter for individual preference to decide.

All the illustrations were made at night on 3¼ x 4¼ Eastman Superspeed Portrait film, with the small automatic Caywood flashlamp nearly full of medium powder, and short-tanked in Elon Pyro. They were then enlarged to 8 x 10 on Eastman News Bromide contrast—a fast, contrasty, dead-white stock paper that is remarkable for preserving all details, even in the deepest shadows. No loss of sharpness can be detected, even in the first illustration, which was taken with two heavy Proxars in superposition.

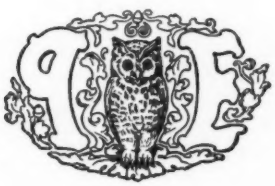

FIGURE 1 CHARLES DUBOIS HODGES

Photography for the Summer Camp

CHARLES DUBOIS HODGES

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Illustrations by courtesy of the camp for which they were especially made by the author

FOR two seasons now I have been the staff photographer for one of the largest and best-equipped boys' camps in the East. During that time I have had an opportunity to learn what, in general, is desirable in the way of pictures for the booklet of a typical camp for boys. I also have done quite a lot of work with motion-pictures made of the activities, to be shown at the winter-reunions, and, to a small extent, to prospective customers. When actually making the pictures, both still and motion, I have found it essential to make sure of naturalness, first of all, because the camp has no use for material which shows other than the regular thing being done in the usual way, with no suggestion of the cameraman being present.

Let us first consider the still-picture work. Of course, there are almost unlimited subjects which would make excellent photographs for a catalogue; but we are forced to choose only a few of the most typical, and, at the same time, treat these everyday views in a new way whenever possible. At all times, as one looks about for the most suitable camera-subjects in the camp, he must keep in mind that the pictures which are finally chosen will be seen by a varied and very critical group of men and women, whose knowledge of camp life is usually limited. For this reason, each picture made should tell a complete story about some very definite part of the camp, and also it should always show the equipment and uniform to the best advantage. It must be made evident to the observer that the scene he sees in the booklet is exclusive to the camp in question, and that it faithfully portrays the activity shown, as practised at the camp.

The directors of my camp have repeatedly emphasised their desire to get unusual pictures of the everyday thing in camp-life. There are certain subjects which they want covered that have been photographed many times previously. Therefore, the camp insists upon some entirely new treatment of them. It will not be satisfied

with commonplace shots of commonplace events. What it does demand is an entirely fresh set of pictures made in such a way that they will have instant appeal to the critical parent interested in choosing a camp. It almost goes without saying that, in order to find its way into the catalogue, a picture must, first of all, be brimful of interest to all observers. Whatever other qualities it has—and it should have some—are so much the better and are sure to please the directors.

The rule which applies to many branches of photography works especially well in camp photography. Always, before making a picture, think carefully of it from the viewpoint of the observer of the finished picture. We notice many things around camp which seem, at first, as though they would make excellent material for the booklet; but, usually, upon further consideration, we decide that there would be no special appeal to the uninitiated person who reads the catalogue. It takes experience to be able to judge what is exactly the most suitable thing to photograph; and even after repeated attempts, we shall still find ourselves making a goodly number of useless views. However, it is often by doing just that that we succeed in getting what is most desired; so one must allow a rather high percentage of waste in order to obtain that which is wanted. The same applies to an even greater extent to the movies, because in making the latter there is bound to be a lot of footage which must be left out, if a decently high standard is adhered to for the final reels.

Before I say something about making movies for a summer camp, let me refer to the illustrations accompanying this article. Figures 1 and 2 illustrate what can be done with an everyday activity when care is used before the exposure is made. Note the complete naturalness of each boy in these two pictures; also the attention to the camp-uniform. In the larger group see how casually the onlookers are standing, each awaiting his turn with the instructor, who is very evidently on the job. In the other picture (Fig. 2) notice the details, such as the ball ready to be driven, the position of the boy's feet, and the snappy appearance of his uniform. Also see how a suggestion of the beautiful setting is given by the distant background. By the way, both of these pictures were made while movies were being made of the same scenes; so that these illustrations serve to show at least one thing which was considered suitable for the reel in addition to the printed page.

Figure 3 tells a simple story in an artistic manner. Since the like of this is often seen when the smaller boys are using rowboats, the view is typical and it surely cannot be said to lack interest. Even though this is a commonplace activity, I treated it in a new way by showing only one boat and framing it under the overhanging boughs.

FIGURE 2 CHARLES DUBOIS HODGES

Figure 4 shows one of the large manual-training projects of the season in process of construction. The boys are seen actually working—although this had to be a short-time exposure—because the picture was made as they did so, and not when everyone was looking up at the camera.

Now for a word about movies. The camp has been making 16-millimeter films for a number of seasons, and they now have several very interesting and complete reels showing all of the important activities and events of camp-life. During the last two summers we have made movies of canoeing through rapids, tent-inspection, manual training work, and similar activities. The idea has been to improve certain parts of the original reels, and to add scenes not

FIGURE 3 CHARLES DUBOIS HODGES

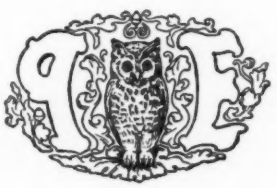
FIGURE 4 CHARLES DUBOIS HODGES

previously photographed. A large proportion of our work the past year was bettering the reels as they stood rather than attempting to lengthen them. Just as the professional producer does his scenes again and again until he feels he has done his best, so the camp desires to perfect its own films. We have almost completed this process to the satisfaction of the directors, and so there will be very little motion work required in the next few seasons. Movies can easily be made which will tell a clearer story than words to the prospective customer, and that is how they can be made a paying proposition for the camp. Besides helping to get campers, the reels will always prove popular with those of the latter who appear in them, and this fact helps the good-will part of the plan.

The movies of a camp should be made of the everyday life rather than solely of such an event as a field day or the like, because the parent can see the latter anywhere in the movies; but he cannot get the personal message of your own camp movies except from seeing the films made only at that one camp. Be sure to include a goodly number of close-ups and small groups. They always have extra appeal since it is so easy to recognise faces in the large view of one or more boys—or girls. Make movies of the things which actually interest boys or girls, and always show plenty of action—of a strictly natural kind. It is well to avoid showing anyone looking directly at the camera, because this gives away the apparent unconsciousness of the amateur acting. When making movies, it is usually necessary to do more arranging in advance than for still pictures, in order that the action may be smooth and logical. I do not mean that things must be especially acted for the camera; but a few precautions should be taken to ensure good results. For instance, if more persons must come into the scene as it is being made, these people should be told in advance just when to enter the picture rather than wait to call the additional ones after the camera has been started. It is difficult to say much about making scenes, because conditions vary so much. It is by no means difficult to get passable results if care is exercised in choosing the subjects to be photographed for the screen, and then in following the directions accompanying the camera.

Since I am always interested to know what equipment others use for various kinds of work, I am now adding a few words about my own cameras. Most of the still pictures were made with a 4 x 5 Revolving Back Auto Graflex with a Steinheil Unofocal F/4.5 anastigmat lens of 8½-inch focus. Figures 1, 2, and 3 were made with this outfit. Figure 4 was made, on a 5 x 7 film with an 8 x 10 Korona View camera, equipped with a 12-inch Ilex Paragon anastigmat. I use this latter camera for all pictures of large groups. The Graflex is used for general work, and it has proved very satisfactory for quick pictures of unexpected subjects, also for speed and portrait work—I equip it with an 8¾-inch Verito for a large amount of the latter work. Almost all of the movies were made with a Ciné-Kodak, Model A, F/3.5 lens, cranked by hand. This last feature was very undesirable at times, and, therefore, I should by all means recommend an automatic camera for camp-work. However, I thoroughly believe in using a rigid tripod even with the motor-driven camera. For the interior scenes in tents and cabins, I employed a Ciné-Kodak, Model B, with the wonderfully fast F/1.9 lens, which I found had ample speed at its largest opening for these difficult views.

I hope that by writing this I have interested other readers in the kind of photographic work which has fascinated and helped me during the last two summers. I should be glad to answer any questions I can along the general line of camp-photography.



Photography in School and College

ARTHUR L. MARBLE

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Chapter XI—Types of Tonal Composition

THERE are those who believe that all pictorial composition is based on line, and that tones result from the necessity of building upon a linear framework. The author does not agree with this view, and in his opinion composition in painting and in photography finds a basis in tones quite as frequently as in lines, if not more so. The beautiful in nature can often be pleasingly arranged in masses, whereas if one attempted to build the same material into a linear composition, the result would not be nearly so satisfying. In beautiful sunset-views it is not so much the lines of the mountains, land, sea, and clouds that are impressive as the coloring, the subtlety of tone, and the depths of light and shadow.

A fact that should be remembered in connection with a study of tones is that such terms as black, dark, gray, light, white, etc., are all relative terminology, and are not absolute in any sense. It may be possible, technically speaking, to name over a dozen separate shades between the color termed black and that called white, though it is doubtful if either of these extremes is found in a pure, unadulterated form in nature.

In analysing tones in composition, it is wise to begin with those works based on dark. One of the best reasons for such a procedure is given by J. C. Van Dyke in these terms: "The chief reason . . . why we should first look at low-keyed pictures is not that they are, by themselves, considered better or worse than high-keyed pictures, but that in proportion we are likely to find more good work among the latter. . . . Worthless pictures may be painted in grays as readily as scarlet; but, as I have intimated, the low colors have an advantage over the high ones in that they are not so pretentious, and therefore not so flagrantly offensive in failure. Bad grammar in a dialect may be irritating enough, but bad grammar in a court language like the French is unbearable". An interesting question that arises at this point is that regarding the impressions and emotions evoked by dark-toned compositions.

It is impossibile to say that dark tones in all pictures create the same sensations or symbolism, as the result is not only dependent on the actual subject and its connotation, but also on the mental state of the observer. With regard to low pictorial tones in general, we know that they are more restful and soothing than light; that they are expressive of such conditions as darkness, melancholy, fear, and death. Dark is

"The hue of dungeons and the scowl of night."

Further, dark is a quiet and reticent tone, although it does mix readily with other colors.

FIGURE 1 "THE SOWER" ARTHUR L. MARBLE

One of the simplest forms of composition based on dark is the silhouette. In Figure 1 (analyzed in *A*, Figure 4), a crayon-sketch of "The Sower", a well-known painting by Millet (1815–75), illustrates the silhouette style applied to painting. Millet's work should be of particular interest to photographers in their study of tones, because he placed masses and halftones first, lines and vivid coloring second. "My dream", he said, "is to characterise the type". Little wonder, then, that he composed so much in the

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silhouette, for its simple outlines tell a generalised story noted for brevity and simplicity.

We often think of a silhouette as an outline of a figure or group of figures standing out against a background of opposite tone. We do not, however, find such contrast in "The Sower". Although the outline of his body is distinct, yet the background is so closely allied in tone with the peasant that he "stands" in his environment, and indeed seems at home with the soil.

A photographic example of a silhouette involving architecture is illustrated in "Impression of Belgium", a low-key picture by H. Berssenbrugge. To the lower left of the center a gentleman, presumably a priest, makes his way back to the camera, in the direction of the light-source. The human interest adds a touch of life to what might otherwise be a somewhat melancholy interpretation. The priest is emphasised, not only by his dark silhouette, but by position as well. The horizontal and vertical lines of the near-by buildings also point him out to the eye. A good example of the mystery that may be evoked by silhouetted architecture is found in the building at the right.

To the photographer who wishes to suppress detail, and who sees in broad masses, the silhouette is a medium of emotional expression whose possibilities are as yet almost untouched.

FIGURE 2 "MY DOG" ARTHUR L. MARBLE

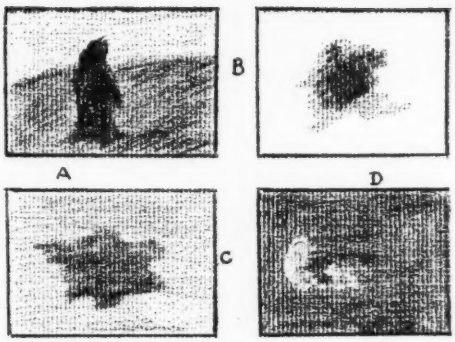

FIGURE 3 ARTHUR L. MARBLE

Another common type, based on dark tones, is dark supplemented by light, illustrated in "My Dog", Figure 2, by Sir Edwin Landseer (1802–73). As sketched broadly in *B*, Figure 3, the principal object, the dog, is dark in tone, and the complementary or background region is light. A "black" silhouette against a "white" setting is a familiar photographic application of this type, which takes full advantage of the law of contrast stating that a light or dark mass is more prominent when placed by the side of the opposite tone. As will be noticed in "My Dog", the subject seems to stand out of its surroundings rather boldly, creating an impression of being independent of its environment rather than related to it. All else being considered, the greater the tonal difference between a subject and its background, the smaller is their apparent relationship.

Certain pictorialists, both painters and photographers, dislike this mode of composition for the reason that the background or supplementary portion receives an undue amount of attention, since the eye instinctively seeks the light. As will readily be seen, this composition should be used with discretion, particularly by the kinematographer and by the still photographer who anticipates exhibiting his work on the screen. If, for instance, a lantern-slide of Landseer's "My Dog" were projected, we should be somewhat distressed by a flood of dazzling bright light around the image of the subject—a disadvantage eliminated in the next type to be considered.

Very similar to dark supplemented by light is dark supplemented by gray, illustrated in a drawing by William Morris Hunt (1824–79). The dark form of "Tiger" (Figure 4, and *C*, Figure 3) is drawn against a background of intermediate tone. The gray background, as

FIGURE 4 "THE TIGER" ARTHUR L. MARBLE

will be seen later, harmonises quite as well with dominantly light as with dominantly dark subject-matter.

The photographer will find unlimited opportunities for the use of gray as a complement to dark. The observant "movie fan" will discover that not a few of the strikingly beautiful scenes that appear on the screen are of this type. A dark form of a ship against a gray expanse of sea and sky, a caravan crossing the burning sands of a desert, an airplane flying through the midst of somber nimbus clouds—all are familiar examples of the kinematic application of dark against gray. It is a combination restful to the vision and soothing to all the senses. This effect is somewhat intensified in another form of composition.

The full power of somber tones comes to fruition in the dominantly dark-toned pictures. "The Firewheel" (Figure 5 and *A*, Figure 3) by Whistler (1834–1903) reminds one of Spenser's line,

The black and doleful ebonie.

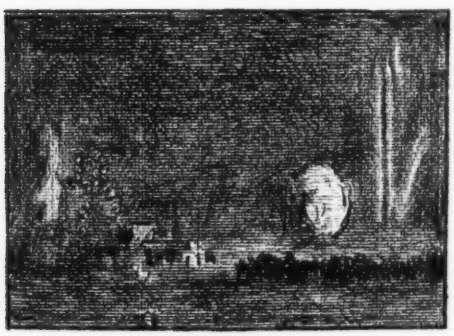

FIGURE 5 "THE FIREWHEEL"
ARTHUR L. MARBLE

The painting is described as being a night-scene in the Cremona. The lighter patches, also quite subdued in tone, are of a fireworks display. At the right is a firewheel before which stands a group of people. On the opposite side is a grove of trees, half shielding the glow of numerous lights. However one may disagree with his methods of portraying darkness, who is there to say that dominantly dark tones are not eminently suited to the message Whistler had to tell? He held the deepest aversion for the immediately evident and the obvious. Art was to him a subtle matter—something not to be caught at a glance, but requiring the observer to match his ingenuity with the artist's.

From the group of compositions based on dark, let us turn to another group in which light and

FIGURE 6 "LE SOIR" ARTHUR L. MARBLE

dark are so interwoven that the two jointly form the basis of arrangement.

A typical example of the equal division of a composition into light-dark is found in the sketch of "Le Soir" (Figure 6, and *A*, Figure 7) from Corot (1796–1875). The painting portrays an airy tree as seen against the dying light of sunset. We are made to feel the influence of atmosphere and misty air—"frozen music", as someone called the effect. The right half of the picture-area is almost entirely filled with the tree and near-by foliage. It will be noted that Corot so skilfully handles the masses that light is actually offset, or balanced, by dark. As an example, the patch of sky at the left and near the top are nearly paralleled by the darker foliage. The whole is saved from stiffness and monotony by a few touches of light in the large masses. We find the high-keyed sky strengthened by the echo found in the pools

of water in the foreground. The formality of the equal division of tones is again broken by the soft and indecisive edge on all masses. Had Corot lived today, and had he recorded any of his visions with a camera, he would probably have been an exponent of the diffusion-lens.

It is unlikely that the pictorial photographer will often have occasion to arrange his material in the form of light and dark evenly divided. Perhaps it is well for him; for of all the types of tonal composition, none is more difficult to handle than the equal division. If the opposite tones are placed clumsily side by side, they become antithetical in the extreme. To devote, for instance, half a picture-area to a dark, barren waste of land and the other half to a dominantly light sky would be to jeopardise the unity of the whole in an opposition of tones. To be successful they must be interwoven to produce unity with variety. "Le Soir" is particularly worthy of study, because in it Corot has achieved a very difficult task of balance. A more subtle and perhaps less difficult way of weaving lights and darks together is in chiaroscuro, or a pattern of light and shade.

Rembrandt (1606–69) is undoubtedly the supreme master of chiaroscuro. It was part of his philosophy that "nature alone should be followed", and his favorite way of viewing nature was as a design wherein highlights and shadows play a leading rôle. But such a method of composition was not entirely original with Rembrandt. The Italian masters, particularly Titian, Raphael, Michelangelo, and Leonardo da Vinci, used chiaroscuro because they felt its power as a unifying agent.

A well-known example of a light and dark pattern is Rembrandt's "The Night Watch" (Figure 8 and *B*, Figure 7), which portrays the Amsterdam Civic Guard under command of Captain Coq, who may be seen near the center of the composition conversing with an officer on his left. Contrasting with the bulky figures of the armed men is the *petite* form of a child who seems to glide through the shadows—shadows not of the night, as was thought by the critic who erroneously named the picture, but shadows of the day. The exhibition of the painting in 1642 drew forth more censure than praise. The Civic Guard had ordered a portrait-group, and this was what Rembrandt produced. The Guard was not accustomed to art for art's sake, and hence the criticism. But Rembrandt painted serenely on, scorning to paint his figures in a uniform or conventional lighting. He so managed the light that it accented the things that were of particular interest to him, while the shadows subordinated elements of lesser interest. Rembrandt's shadows are not coal-black, as they unfortunately appear in many reproductions, but have a certain lucid transparency. In commenting on the proportion of light and dark in chiaroscuro, Sir Joshua Reynolds wrote: "Rubens seems to have admitted more light than a quarter and Rembrandt much less, scarcely an eighth. By this conduct Rembrandt's light is extremely brilliant; but it costs too much, and the rest of the picture is sacrificed to this one object".

There are, on the other hand, critics who hold that Rembrandt's powerful design of light welds various elements into a single unit of pulsating life. The repetition of similar light and dark tones in "The Night Watch" undoubtedly serves as a unifying element, just as the constant recurrence of a certain combination of notes in a piece

FIGURE 7 "THE NIGHTWATCH"
ARTHUR L. MARBLE

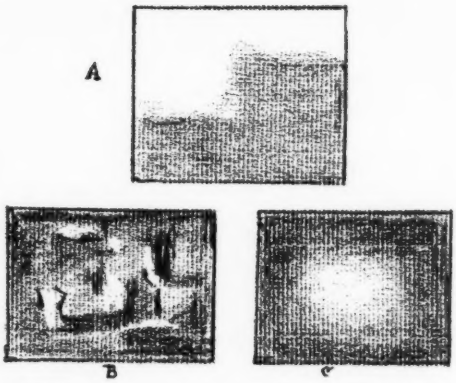

FIGURE 8 ARTHUR L. MARBLE

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THE SETTING SUN — R. SAWAJI

of music serves to create an impression of totality or completeness.

There are many ways of successfully building a pattern of light and dark. A rather original manner of treatment is found in the photograph, "The Setting Sun", by R. Sawaji. It is a sunset-scene on the ocean: the waters of almost nocturnal darkness merge without break into a scarcely less somber sky. Two silhouetted forms of boatmen and their craft are balanced on the extreme right by the low-toned hull of a vessel. We find a similar balance of the opposite tones. The luminosity of the rays of sunshine sifting through the dark cloud-banks is compensated by delicate reflections on the water.

"The Night Watch" illustrates a patchy form of chiaroscuro, but "The Setting Sun" is a more reserved kind of light-and-dark pattern in which the design is much less elaborate. In both we have unified composition produced by the interweaving of two extremes of tone. Each artist seems to have chosen the method that is best suited to the message he had to tell. Rembrandt wished to suggest vivid life and motion as seen under lights and shadows. Actually, the effect produced by the patchwork of highlights causes as much eye activity and consequent sensation of motion as do zigzag lines in linear composition. The number of contrasts are fewer and less intense in "The Setting Sun", with the result that the whole is more restful.

There are other ways of weaving light and dark together besides equality of tone and chiaroscuro compositions. One of the most prominent methods is by a continuity or graduation of tones.

Such is the type of lighting employed in Lerolle's (1848–) "Arrival of the Shepherds" (Figure 9 and *C*, Figure 7). The painting depicts a historic scene in the sacred grotto in

FIGURE 9 "ARRIVAL OF THE SHEPHERDS"
ARTHUR L. MARBLE

Bethlehem. The Christ-Child and the Virgin Mary form the center of interest, consequently they are in such a position as to receive the full strength of the lighting as it issues from the upper background.

From the high-key in the center the color merges into the deeper shades until the opposite end of the tonal scale is found in the edges of the composition. If lines were drawn through points of similar tone, we should have a series of concentric rings. Although in chiaroscuro it was the repetition of interwoven opposite tones that held the picture together, in "The Arrival of the Shepherds" it is the mergence of light into dark that makes the two antipodal keys mutually helpful and interrelated.

Some idea of how graduation of tones may form the basis of a photographic composition may be derived from a study of "The Light Beyond", a mountain-scene by Lavenson. In it we find that the outstanding objects of interest are the faces of two tall mountain-precipices, both enveloped in a haze that mingles with the ravine below and the lighter clouds above. The near-by cliff at the left is comparatively dark-colored, but that at the right, and in the distance, is converted into light by the mist and aërial perspective. The next step into a lighter color from the distant cliff is to the more luminous milky-white mist and the clouds of similar color above and beyond. In its return journey over the print, the eye may choose another pathway over the various details. It may become interested in the ravine, through which attention is held and carried by another mergence of tones—this time from light to dark—the opposite succession found in the broader, more obvious features of the picture. The brilliance of the foliage in the hollow grows in strength as the foreground is approached, until the highlights culminate in the tree at the lower left, which incidentally serves to balance the more powerful light beyond. In this way, through her double plan of tonal graduation, Miss Lavenson has given us a pleasant imaginary hike through the hills and back again.

The types of tonal compositions thus far considered are merely suggestive, and in no way exhaust the subject of possible pleasing combinations of dark tones. Space does not permit a discussion of arrangements that may be just as meaningful as any that have been mentioned. For instance, besides dark supplemented by gray and dark supplemented by light, we might have a very pleasing combination of dark supplemented by both gray and light, and so on.

(*To be continued*)

Your Photographic Opportunity Now

A. H. BEARDSLEY

THE hills, the mountains, the seashore, the birds, the flowers, and the open road are all photographic opportunities which are now at hand to test the skill and initiative of the vacation-photographer. From personal experience and observation it is a matter of regret to me to witness the needless waste of first-class photographic material which seems to have become an expected part of the vacationist's photographic efforts. It is not necessary; and certainly the resulting disappointment—often absolute disgust—benefits neither the vacationist nor photography. If tennis, golf, shooting, sailing, and other sports are worth mastering, why should not a camera be mastered sufficiently to ensure good vacation-pictures? Let me urge the purchase of an exposure-meter, a distance-meter—for those who find it difficult to estimate distance—a carrying-case to protect the camera, and a thorough reading of the instruction-book. Most important of all, let me urge every vacation-photographer to decide now to master his camera, to refrain from careless "snapping" and really to make the most of his photographic opportunities.

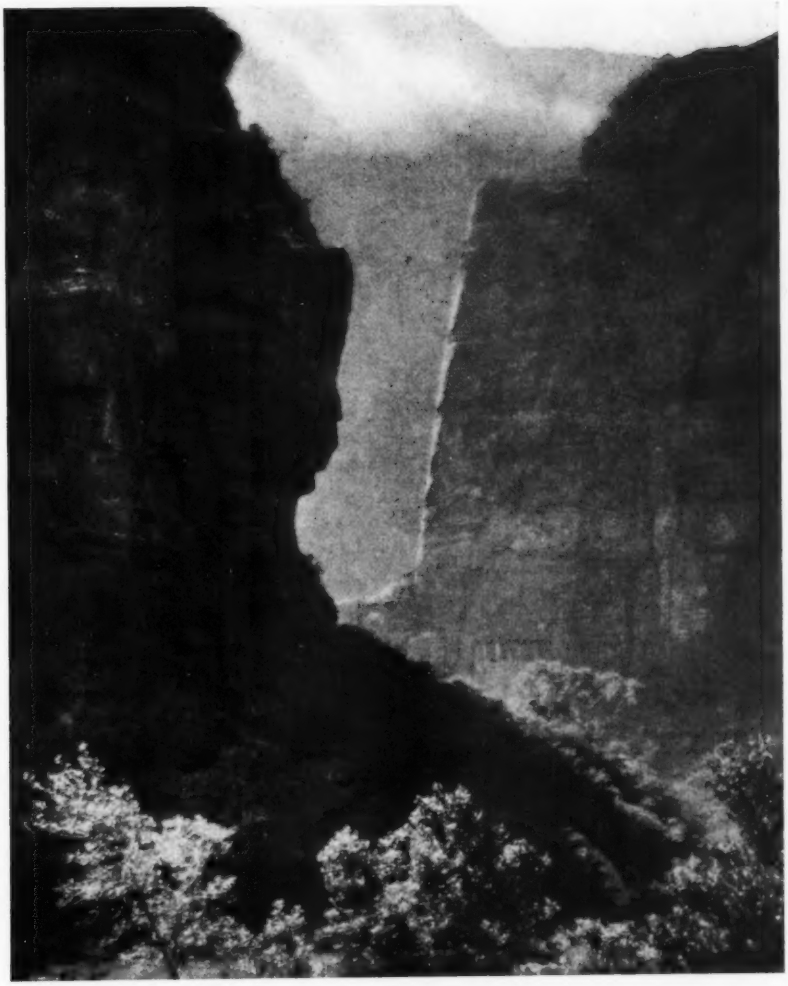

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FIGURE 1
FIGURE 3
GROUP OF AMATEUR SUBJECTS

FIGURE 2
FIGURE 4
MARY E. ARCHER

Photographic Hints for the Amateur

MARY E. ARCHER

A CAMERA today is almost indispensable—its uses are legion. Even in the hands of an amateur, wonders may be accomplished with it; and, moreover, we know such pictorial records are dependable, for whatever the camera sees it portrays truthfully, without fear or favor. Aside from its hundred and one scientific uses, photography possesses unlimited possibilities along educational, recreational, and artistic lines. It is an invaluable aid to the writer, a joy to the soul of the artist, and a dollar-maker to the genius who understands its scope and usefulness.

The beginner usually attempts to include too much in his pictures, thus creating an overcrowded appearance. Some knowledge of composition is, therefore, essential; and if to this be added artistic taste, then, indeed, is the operator advantageously equipped.

"Bringing things together in an orderly and symmetrical manner" has been given as a good definition of composition. Each picture must possess one dominant figure, or object, to which all others are subordinate. There should also appear some object of secondary interest, although there are exceptions to this rule. There must be a *reason* for the existence of every picture, and its composition must be such as to make the reason apparent at a glance. In making picture No. 1, the photographer wished to show the entrance to Borestone Mt. Fox Farm, with its canine watchman—the police dog—on duty. The figure appearing at the left is counterbalanced by the large birch-tree in the foreground to the right; and the whole constitutes a good example of a well-composed picture. Further reference will be made to this picture later, in regard to the matter of lighting.

The foreground should be wisely chosen, though simple, leading up to the principal object in a pleasant, but unobtrusive manner such, for example, as may be noted in picture No. 2. The snapshots accompanying this article are shown not because they are extraordinary in any way, but because they happen to illustrate the points under discussion.

Undesirable objects may usually be eliminated by judicious manipulation of the camera—moving it to the right, or left, up or down, as the case calls for. Include nothing in the picture which introduces a foreign element—or, in other words, leave out everything that is unnecessary. Picture No. 3 illustrates this point. The field of daisies forms a most artistic setting for the pleasing figure of the child, but the houses should not appear, as the eye is drawn away from the subject by such objects in the background. These might easily have been avoided by snapping the picture from a slightly different viewpoint. Otherwise, the picture is photographically correct.

The best effects of light and shade are obtained by having the sun behind the camera, though satisfactory pictures may be made when the strongest light comes from the side. In fact, depth and roundness may be given to objects in this way, and a much more pleasing contrast of light and shadow. Again we refer to picture No. 1. This was made with the sun at the right. Note the attractive shadows, and the manner in which the light strikes the birch-tree. If the sun had been directly behind the camera, it would have produced the effect of flatness, whereas, with the left side of the tree in shadow, its roundness is brought out and emphasised, giving it a much more natural appearance. No shadows should be dark enough to obscure detail, nor light enough to cause too great a contrast, but should be transparent to a certain degree; for an extreme in either direction robs the picture of its charm.

It should be remembered that the most important part of a picture is always more or less toward the center—though the exact center should be avoided, as it produces the effect of dividing it into equal parts. By placing the subject a bit to one side, as was done in making picture No. 4, no such fault occurs.

The most harmonious backgrounds are those which are not only suited to the subject, but also mildly inconspicuous. See pictures No. 2 and No. 4. With the two houses eliminated, No. 3 also would possess a perfect background for this particular subject; for simplicity goes hand in hand with childhood.

In making landscape-pictures, the horizon-line should never appear at the center, but about one-third from the top or from the bottom. When there are subjects in the near foreground, we are taught that it should be approximately one-third from the top; but in broad, expansive views, the same distance from the bottom. A clouded sky adds materially to the attractiveness of a picture.

In emphasising these points, we do not wish to give the impression that they are the only ones to be considered; but they are among the

first to be considered, and, if they are heeded, the amateur will soon find himself well on the way to successful picture-making.

My experiences with a Brownie camera would require much space to relate, therefore I shall have to be content with assuring you that it has given me inexpressible pleasure, as well as a lasting record of many a pleasant trip and episode; and last, but not least, it is now serving me in making illustrations for magazine-articles. Sometimes the original prints are used, and in other instances I have enlargements made from the negatives. The subject of enlargements, alone, would furnish material for a separate article.

There is a certain fascination to photography, which increases with experience; and he who once employs it, whether as a means of livelihood, or merely as a pastime, finds a path of added pleasure opening up to him each day.

The Novel Souvenir Postcard

KARL KLOKOW, Jr.

IT hardly seems a broad statement to say that every object of public interest and every place which people visit, either for a few minutes or for weeks, is recorded on some form of postcard. With the advent of the motorcar, touring came into being, and it appears that with it the custom of "dropping a postal" was established. This custom, which perhaps originated from a desire to show the amount of ground covered, or number of towns visited, has widened to such an extent that few of us who travel some distance, either by motor or in any other manner, do not employ it. After all, it is a rather pleasant experience to be the recipient of such a card, little as it may be! It indicates that one must have been in the sender's thoughts, at least for a few minutes.

When vacation-period rolls around, we are often in a quandary as to just where to go. Each one of us has his own idea of what constitutes an enjoyable vacation. My inclination runs toward the life which may be led at some of the summer-camps, and early summer found me at a camp situated on the shores of ample Lake Tiorati, not very far from the Ramapo Mountains in New York State.

Aside from the regular outdoor recreation, I am, just like any other vacationist, in the habit of bringing along plenty of "ammunition", and "shooting" interesting scenes and incidents related to camp-life. Ever so often, however, the bugaboo known as "expenses" is apt to confront me, or involve my stock of films, printing, and enlarging papers. When one of limited means has a desire to make a large number of pictures, this situation is more keenly felt than otherwise. Just prior to going on vacation, therefore, it was decided that the camera would, at the very least, have to pay its own way. Spending a vacation without making a picture was unthinkable; so the camera went with me and—it paid!

After one has been at a summer-resort for a couple of days, the urge to inform friends of the good time one is having manifests itself in the usual brilliantly colored postcards of local views. Frequently one finds photographic postcards, which seldom offer anything in the way of novelty. Moreover, their machine-made appearance does not add to their attractiveness. While examining a few of the latter one day, "came the dawn" as the movie men would say. The weapon with which to route the "bugaboo" was the souvenir postcard! Of course, these cards are not new, but they are rare. Other than three or four reproductions in photo-magazines, none have come to my attention.

My decision resulted in my using most of the rolls of film I had brought along in photographing everything, from the big stone camp-fireplace to the camp watch-dog—in fact, everything which might be of interest to a casual visitor as well as one staying in the camp for a week or two. No attempt, however, was made to make subjects of a highly pictorial nature, nor were any "mushographs" made. Work of this class would be entirely out of place in this type of souvenir postcard.

Upon my return home, the rolls were developed, prints made, and the most likely subjects selected for mounting. The prints chosen were those of a popular nature, *i.e.*, those showing places and incidents with which every visitor quickly becomes familiar. The greatest number of prints ever mounted on a card was seven; the average, five.

After the selection of the prints, the next step was the "layout", or arrangement. This was first made roughly on a sheet of paper. The arrangement, when satisfactory, was worked out on a sheet of cardboard which was either of pure white, black, or with a sort of colored pebble grain. The exact position of each print was determined by measurements; and after

making the outlines in pencil, the borders, lettering, and so on, were inked in with India ink on the light cards and with white ink on the black.

The illustrations herewith will enable one to obtain a more comprehensive idea of the layouts than words of description. The photographs were then mounted with Kodak dry-mounting tissue. This medium, unlike glue or paste, keeps the prints perfectly flat—a great aid when copying.

It is not my intention to convey the impression to a reader of this article that ability as an artist was necessary to execute the lettering and other art-work. All presumptions in this connection may well be put aside. If the making of similar cards is attempted, anyone using a pen, a ruler, and ordinary care should find no difficulty in drawing the borders and lettering.

On the completion of the originals, a negative was made of each card through a 5 x 7 view-camera fitted with an old rapid rectilinear lens. Had such equipment not been available to me, the negatives could easily have been obtained at a low cost through almost any photo-dealer who does amateur photo-finishing. Even in the smaller towns, copies may be had at a nominal expense. The original cards were approximately two and one-half times the size of the finished cards, and as the reduced size—about 3 x 5—

was in the center of a 5 x 7 cut-film, each one was masked off with strips of lantern-slide binding tape, thus expediting quantity printing. Incidentally, the negatives were developed in a rather contrasty developer.

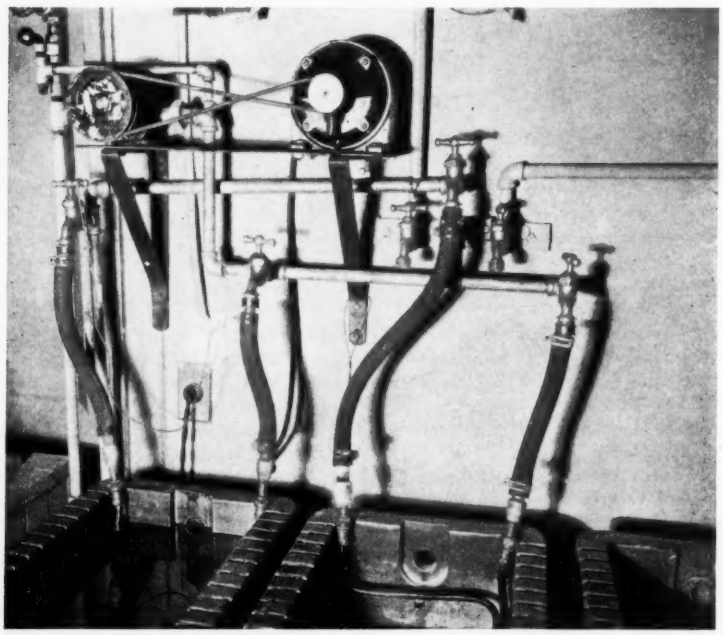
A little later in the season, I spent a week-end at the camp, having previously supplied myself with some of the finished cards. It required no salesmanship on my part to obtain an order. On seeing them, the camp-director immediately requested that a trial hundred be made, and this order was subsequently followed by one for five hundred more. The amount realised from the sale of the cards exceeded my rather moderate calculations, and was more than enough to keep me well stocked in photo-materials for quite a while! In addition, the demands of the next season and perhaps the one following will enable me to realise a neat sum from the sale of further hundreds of the cards.

Most camerists have a large collection of vacation-pictures encompassing subjects of a great variety which might easily be made to pay their board. Winter-months offer an excellent opportunity for the making of these pictures into souvenir postcards. The long evenings afford more time to the selection of prints and to the most effective arrangements. The amateur may then be in a better position to begin soliciting orders just prior to the opening of the summer-resorts. Soliciting, however, need not be confined to summer-resorts; as hotels, road-side refreshment stands, large farms, and others will find the cards useful.

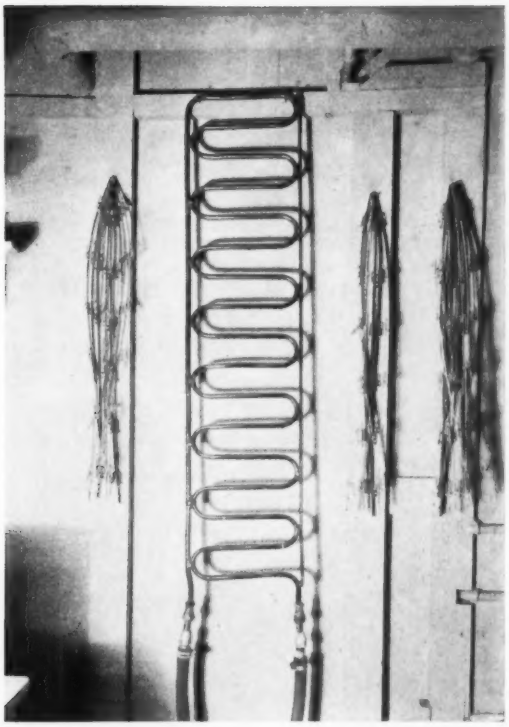
Maintaining Temperature

C. H. THOMAS

A TEMPERATURE regulating-system for use in keeping the developer and other liquid warm for use in winter-developing has been installed and used by the Eastman Stores for some time and is working very well. Briefly, the system consists of a series of coils through which cold water is kept in circulation by means of a pump. Three sets of coils are in an ice-chest situated near the



TEMPERATURE REGULATING SYSTEM C. H. THOMAS



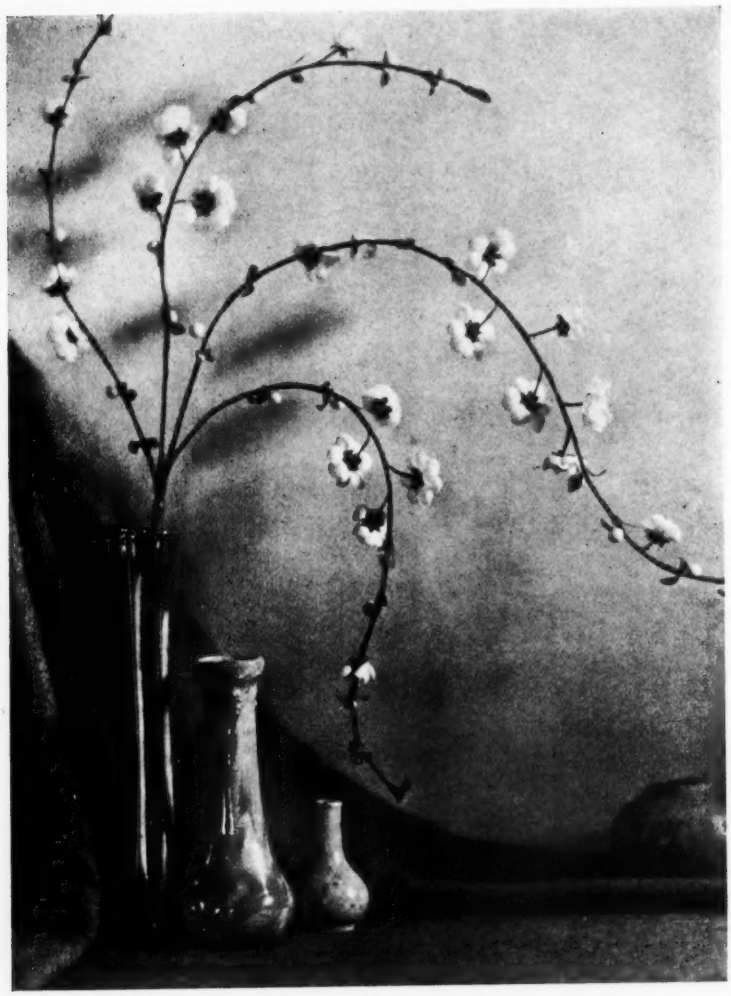
COIL FOR USE IN TANK C. H. THOMAS

tanks; the water circulating through these coils goes up and through a pump and down through similar coils placed at the inside of the developing and the rinsing tank. In the winter, warm water is circulated through the coils directly from the plant supply.

The ice-chest is the ordinary type, capable of holding two hundred pounds of ice in addition to three sections of coil made from ¾-inch galvanised pipe. The coils lie horizontally in the bottom of the chest, the outlet of which is so arranged that the two lower coils are immersed in the melted ice-water, while the upper coil is in contact with the ice. The circulating pump is manufactured by the Lobee Pump and Machine Company of Buffalo, and is a Type A, ¾-inch, operated by a 1/8 horse-power motor with a belt-drive. You will note in the illustration the convenient placing of the pump and power unit on a shelf just above the tanks. The coils to be inserted inside the tanks at the back are made of ½-inch block tin and are coated with traykote, a chemical-proof paint. It is necessary to repaint them from time to time in order to guard against possible contamination of the solutions. Ordinary garden-hose is used to connect the various parts of the cooling system.

In winter, the block tin coil is disconnected from the circulating system, and one side of it is attached to a hot-water tap, the outlet flowing into a sink or drain. By this arrangement, no cost for power is incurred in winter, although the temperature is maintained as well as in the summer. For the small or large plant, the above system is excellent.

[We would point out that very often hints and practical suggestions, such given by Mr. Thomas, are of value to our readers. Not always that they would do the very same thing but that the idea described leads to the development of still another idea or plan specifically worked out for a special need. After all, the cordial exchange of experiences and suggestions between those who are interested in the same subject is a splendid thing for us all to do.—EDITOR.]



HARMONY
ZULTAN HERCZEGH
HONORABLE MENTION—TABLE-TOP PHOTOGRAPHY

EDITORIAL

Avoiding Hackneyed Subjects

CAMERISTS who visit popular winter-resorts must not imagine that the pictorial possibilities have been exhausted by previous visitors eager to record them for the benefit of their friends or of pictorial composition. There are those who picture what happens to interest them at the moment; others select subjects which they consider unusual; and here is where they frequently display excellent judgment. It is the uncommon in which most persons are interested. If one sees camerists snapping here and there indiscriminately, the first thing that occurs to the mind of the discriminatingly observant person is that there is apt to be a lack of novelty in what is being recorded. Then is the time to ignore such subjects altogether. In many cases, subjects of permanent interest are very apt to be overlooked except by the keenly observant and discriminating camerist, who will be sure to utilise the right moment to make the subject his own. In this way a collection of prints may be accumulated that bear the steamp of originality and selectiveness, which imparts to them greater pictorial value and interest. The cultivation of the faculties of observation should prove a valuable asset in selective picture-making. It may be well to avoid the consideration of the obvious in the art of artistic pictorial endeavor.

The Practical Viewpoint

IN picturing a house that forms part of a block, and has only one visible side, the camerist should bear in mind that, although he may be familiar with the details of the outside appearance, the one who sees his photograph of the structure may be entirely unfamiliar with it. Might it not be well, therefore, for the photographer to present to the eventual observer a view of the building that shall tell the story as comprehensively as possible?

A case in point is the exception taken by Mr. Jacobs (see page 104, PHOTO-ERA MAGAZINE for February, 1928) when he voices his dissatisfaction with the photograph "June", offered for general criticism. To be sure, the picture was originally composed with a true understanding of the artistic possibilities of the subject, as well as of its limitations. The former being obviously uppermost in the mind of the camerist, he set about to get as much as possible out of the pictorial material presented. Whether or not observers might be interested did not matter to him. Why should it? A person interested in the possible purchase of the residence—provided it were on the market—and eager to become familiar with the outward appearance of the building, would undoubtedly be able to learn the name of the owner or agent, and take the necessary steps to obtain all important details. And thus the reader may treat the subject just as it appeals to him, and two aspects of the situation will be solved, from a purely materialistic viewpoint. Should Mr. Jacobs entertain neither of these two suggestions—and why should we presume to draw him into an unprofitable argument and one in which he may not be in the least interested?—he will good-naturedly dismiss the whole matter.

An Accident that Benefited Photography

WERE it not for an accident, where would photography be? Still slumbering in the lap of its discoverer—not inventor—Daguerre, whose name takes a high place among inventors of all time. The accidental upsetting of a phial of bichloride of silver, startling the innocent worker so that he scarcely knew what was happening, marked the moment of incalculable importance in the world of science. The process that proved later to be a boon to mankind was entirely unforeseen; and when, shortly afterwards, the dazed Frenchman held in his hands his own portrait, the spontaneous creation of his own clumsiness, his bewilderment can be more easily imagined than described. The world of science offers no more thrilling discovery than this epoch-making one of Daguerre's; but he lived long enough to enjoy the fruits of his discovery. His own government showered great honors upon him, and even offered to assume all the cost of acquainting the world with the secret details of the process. This proposition, however, did not meet the approval of Daguerre, who, a man of generous impulses himself, preferred to donate his fortunate discovery to the world. This he did, and the Daguerre process became free to all.

ADVANCED COMPETITION

Closing the last day of every month
Address all prints to PHOTO-ERA MAGAZINE, Advanced Competition
Wolfeboro, New Hampshire, U.S.A.

Prizes

First Prize: Value $10.00.
Second Prize: Value $5.00.
Third Prize: Value $3.00.

Honorable Mention: (*a*) Those who win an Honorable Mention Award and are *not regular subscribers* will receive PHOTO-ERA MAGAZINE for six months with the compliments of the publishers.

(*b*) Those who win an Honorable Mention Award and are *already subscribers, or have been subscribers,* will receive an Honorable Mention Certificate. Those who win ten of these certificates and send them to us to be recorded will receive a neat silver cup, suitably engraved. There is no time-limit. However, ten certificates must accompany all requests for the cup.

Prizes may be chosen by the winners, and will be awarded in photographic materials sold by any dealer or manufacturer who advertises in PHOTO-ERA MAGAZINE, or in books. If preferred, the winner of a first prize may have a solid silver cup, suitably engraved.

No Prize or Honorable Mention pictures are sold, exchanged or the halftone-plates sold without permission, in writing, from the maker of the print. Proceeds of all sales, *excepting halftones,* go to the maker of the picture.

All competition-pictures not returned are used to make up the PHOTO-ERA PICTURE EXHIBIT which is sent to schools, libraries, museums, camera clubs, and to responsible organisations for exhibition-purposes, *free of cost.*

Rules

1. This competition is free and open to photographers of ability and in good standing—amateur or professional.

2. Not more than two subjects may be entered, but they must represent, throughout, the personal, unaided work of competitors. Subjects which have appeared in other publications are not eligible, nor may duplicate prints be sold, or entered into competitions elsewhere, before PHOTO-ERA MAGAZINE awards are announced.

3. Prints on rough or linen-finish surface, and sepias, are not suitable for reproduction, and should be accompanied by smooth prints having the same gradations and detail. Prints may be mounted or unmounted.

4. Each print must bear the maker's name and address, the title of the picture, and the name and month of competition, and should be accompanied by a letter, *sent separately,* giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer, and printing-process. Enclose return-postage. Data-blanks sent at request.

5. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA MAGAZINE, unless for special reasons. This does not prevent the photographer from disposing of other prints from such negatives *after* he shall have received official recognition.

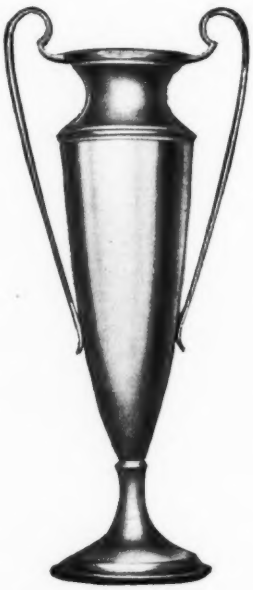


Photo-Era Prize Cup

6. Unsuccessful prints will be returned only when return-postage at the rate of one cent for each two ounces is sent with data.

7. Prints should be carefully packed between two layers of cellular board so cut that the corrugations run at right-angles to each other.

8. Competitors who have won three first prizes within a twelvemonth become ineligible to receive prize cups in this competition for *one* year thereafter.

AWARDS—ADVANCED COMPETITION

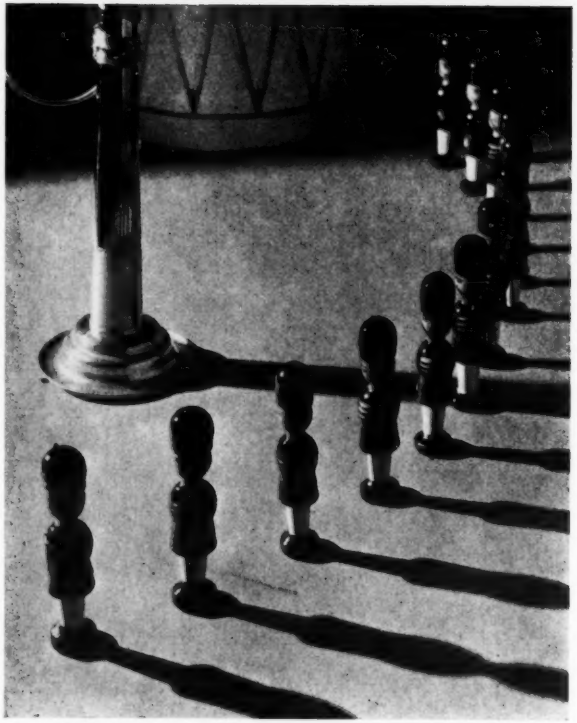
Subject—TABLE-TOP PHOTOGRAPHY

Closed April 30, 1928

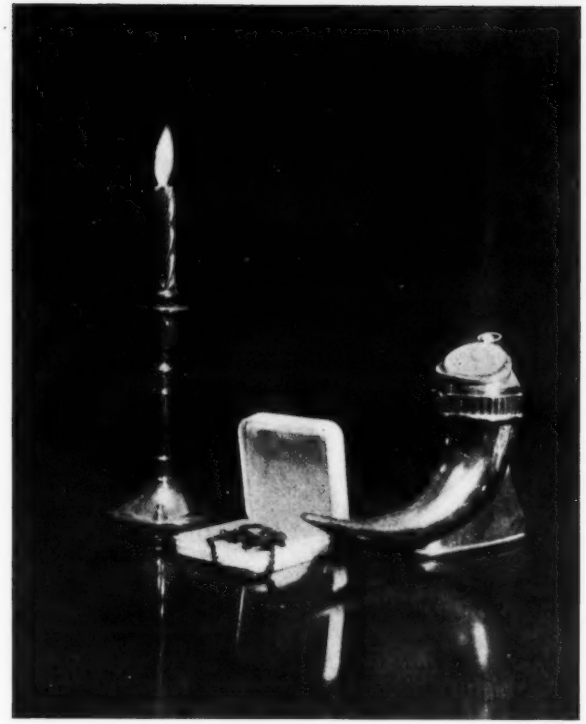
First Prize	Erwin J. Rebafka
Second Prize	Bruce Metcalfe
Third Prize	Edward Alenius

Honorable Mention: Donald W. Beck; C. Frankenberger; Zultan Herczegh; Hiromu Kira; U. Stephen Johnson; Alexander Leventon; Mario Lucio Scacheri; John Skara; R. W. Weller; Wm. O. Yates.

IN DOLL-TOWN
ERWIN J. REBAFKA
FIRST PRIZE—TABLE-TOP PHOTOGRAPHY



THE PARADE OF THE WOODEN SOLDIERS BRUCE METCALFE
SECOND PRIZE—TABLE-TOP PHOTOGRAPHY



BEADS EDWARD ALENIUS
THIRD PRIZE—TABLE-TOP PHOTOGRAPHY

SUBJECT FOR NEXT COMPETITION

ADVANCED WORKERS

Subjects for Competition—1928

"My Home." Closed January 31.
"Portraits." Closed February 28.
"Indoor-Genres." Closed March 31.
"Table-Top Photography." Closed April 30.
"Artificial Light Photographs." Closed May 31.
"Architectural Subjects." Closed June 30.
"Pictures of Children." Closes July 31.
"Landscapes." Closes August 31.
"Outdoor-Genres." Closes September 30.
"Animal Pictures." Closes October 31.
"Water-Scenes." Closes November 30.
"Vacation-Pictures." Closes December 31.

Landscapes

Not in recent years have we had a competition-subject devoted to landscapes. That is, we have had landscapes with figures; but not one which left the contestant free to select his subject with or without accessories as he might prefer. Without a doubt, pictures of beautiful landscapes will always have an appeal. There is virtually no limit to subject-material. Nearly every mood in human nature has its counterpart in the great out-of-doors. By selecting the landscape and the time of day, season of the year, sunshine or storm it is possible to portray the most stirring or the happiest moods which are known to humanity. For this reason, no doubt, so many of the famous painters devoted themselves to landscape-subjects. Modern photographic equipment with its fast lenses, panchromatic plates and films, filters, sunshades, exposure-meters, desensitisers and other advantages place the photographer in an enviable position. Today there is virtually no condition of weather or time of day that cannot be mastered with modern photo-equipment.

It would seem, then, that the subject of landscapes should offer our friends an exceptional opportunity to exercise their technical and artistic abilities. Certainly, landscapes are easily found, even in the cities where parks often serve admirably as subjects. It might be well to state that a landscape does not necessarily imply a panoramic view, although such a view would naturally fit this competition. Any vista, glimpse, expanse or artificial setting which includes trees, flowers, hills, mountains, meadows and woodlands is eligible for entry under landscapes.

A. H. Beardsley.

HOMESTEAD CABIN — MARTHA CURRY

EXAMPLE OF INTERPRETATION

BEGINNERS' COMPETITION

Closing the last day of every month
Address all prints to PHOTO-ERA MAGAZINE, Beginners' Competition
Wolfeboro, New Hampshire, U.S.A.

Prizes

First Prize: Value $7.50.
Second Prize: Value $3.50.

Honorable Mention: (*a*) Those who win an Honorable Mention Award and are *not regular subscribers* will receive PHOTO-ERA MAGAZINE for six months with the compliments of the publishers.

(*b*) Those who win an Honorable Mention Award and are *already subscribers, or have been subscribers*, will receive an Honorable Mention Certificate. Those who win ten of these certificates and send them to us to be recorded, will receive a neat silver-cup, suitably engraved. There is no time-limit. However, ten certificates must accompany all requests for the cup.

Prizes, chosen by the winner, will be awarded in photo-materials, sold by any dealer or manufacturer who advertises in PHOTO-ERA MAGAZINE, or in books.

No Prize or Honorable Mention pictures are sold, exchanged or the half-tone plates sold without permission, in writing, from the maker of the print. Proceeds of all sales, *excepting halftones*, go to the maker of the picture.

Rules

1. This competition is open only to beginners of limited experience with practical camera-activity, and whose work submitted here is without any practical help from friend or professional expert.

2. Workers are eligible so long as they have not won a first prize in this competition. Winners of the first prize automatically drop out permanently, but may enter prints in the Advanced Class at any time.

3. Prints eligible are contact-prints and enlargements up to and including 8 x 10 inches.

4. Prints representing no more than *two* different subjects, for any one competition, and printed in any medium except blue-print, may be entered. Prints may be mounted or unmounted, as desired. Subjects which have appeared in other publications are not eligible, nor may duplicate prints be sold, or entered in competitions elsewhere, before PHOTO-ERA MAGAZINE awards are announced.

5. Prints on rough or linen-finish surface, and sepias, are not suitable for reproduction, and should be accompanied by smooth prints having the same gradations.

6. Each print entered must bear the maker's name and address, the title of the picture, and the name and month of competition, and should be accompanied by a letter, *sent separately*, giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer and printing-process. Enclose return-postage in this letter. Data-blanks sent at request.

7. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA MAGAZINE, unless for special reasons. This does not prevent the photographer from disposing of other prints from such negatives *after* he has received official recognition.

8. Unsuccessful prints will be returned only when return-postage at the rate of one cent for each two ounces or fraction is sent with data.

9. Prints should be carefully packed between two layers of cellular board so cut that the corrugations run at right angles to each other.

PHOTO-ERA MAGAZINE
The American Journal of Photography
Wolfeboro, New Hampshire, U. S. A.
THIS is to certify that an Award of PRIZE
is hereby given to the picture entitled
entered by
in the PHOTO-ERA MAGAZINE Monthly Competition
which closed 192
Editor

PRIZE-WINNERS' CERTIFICATE

PHOTO-ERA MAGAZINE
The American Journal of Photography
Wolfeboro, New Hampshire, U. S. A.
THIS is to certify that an Award of *Honorable Mention*
is hereby given to the picture entitled
entered by
in the PHOTO-ERA MAGAZINE Monthly Competition
which closed 192
Editor

HONORABLE MENTION CERTIFICATE

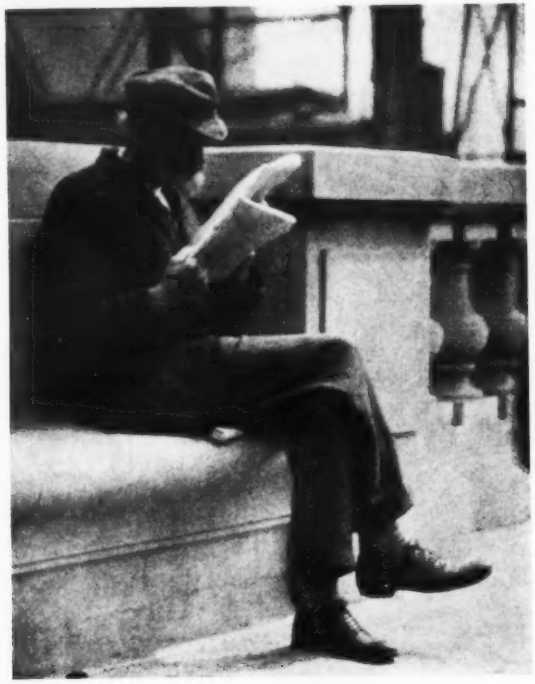
AWARDS—BEGINNERS' COMPETITION

Subject—MISCELLANEOUS

Closed April 30, 1928

First Prize . . . . . Dr. Frederic W. Burcky
Second Prize . . . . . Edward McMahon

Honorable Mention: Ralph F. Blood; Loretta G. Burrough; Eric O. Johnson; C. Lahoma; Helen E. Miller; V. Dolfi Orlando; Carleton Shaw; Robert S. Smallwood; Elton Smith; Harry W. Storey; Dr. A. Wieczork; Horace Yoemans.



"HELP WANTED" DR. FREDERIC BURCKY
FIRST PRIZE—BEGINNERS' COMPETITION

CANAL SCENE, BRUGES, BELGIUM EDWARD MC MAHON
SECOND PRIZE—BEGINNERS' COMPETITION

OUR CONTRIBUTING CRITICS

A CANADIAN SUNSET — W. J. CLEMENS

THE PICTURE CRITICISED THIS MONTH

Data: Made near Blairmore, Alberta, Canada; October, 1925; gray day; Eastman 3-A Kodak; Anastigmat lens, F/7.7; used at full opening; 1/25 second; roll-film; Velox print.

***Whoever sends the best criticism** (not over 200 words) **before the last day of the current month, will receive from us a three-month subscription to** PHOTO-ERA MAGAZINE.*

The winning criticism, in our opinion, is the first one printed below. Criticism should be helpful and courteous.

Seven Criteria for Critics

(1) Background and Sky. (2) Foreground and Figures. (3) Main Interest vs. *Distraction. (4) Gradations and Tone Values. (5) Lines and Masses. (6) Atmosphere and Interpretation, and (7) Photographic Technique.*

WHEN we adopted so generally the modern roll-film camera held in the hand, using a focusing-*scale* in place of the older type of groundglass focusing-*screen*, which required a tripod, we paid in large measure for all we gained in time and convenience by the loss of the ability to study our picture on the screen. Lay your pencil over that dead pine. Note the improvement. Our eye, governed partly by what it sees and partly by past experience, refuses to fill in a dead tree-trunk under the pencil, and declares that there the picture must be much the same as on either side. Obviously, the pine must be eliminated. It were better to make this picture over, if feasible; but if not, then trimming must be resorted to, even at the sacrifice of position and much interesting material at the right.

This picture's most glaring fault, as mentioned above, is not all, however. There appears to be snow on that mountain. If so, it is not well rendered. A Kodak color-screen or, better still, the Wratten K-1 or K-2 filter in B glass is not so terribly expensive. Neither is a tripod. For making pictures of this kind they would pay for their expense and use many times over in satisfaction.

From the foregoing it might seem that this picture was all faults and no good points, which is not the case. The sky is magnificent, and the picture, itself, indicates the appreciation of a beautiful scene in nature, with the desire to record it permanently for the appreciation and benefit of others. If Mr. Clemens was traveling when he made this picture, it does not justify the trouble and expense involved to make it again. But if he lives there or near by, then it is well worth making again when light and cloud-conditions are similar. But this time, choose a point far enough forward to omit the tree. Use a tripod and color-screen. Cut a mask the size of your negative. Hold it over the lens and, with the eye centered at the film-plane in back of it, study the massing of your picture. Then give plenty of exposure and do not over-develop.

B. H. JACOBS.

YE OLDE MILL — GEORGE W. DAVIS

YOUR CRITICISM IS INVITED

Data: Made near Knoxville, Tenn.; Premo camera 100; 6½ x 8½; B. and L. Protar Convertible lens; focal length, 9⅛ inches; stop, F/8; K-2 color screen; August, 11 a.m.; bright light; 5 seconds' exposure; Eastman Ortho-Cut Film; pyro; Azo 3.

WITH the exception of one brightly illuminated cloud in the center, this photograph has a decidedly flat appearance, which is most pronounced toward the right of the tall stripped pine-tree, where only slight gradation between highlights and shadows exists, although much detail is visible. This fault suggests one of two things: either a paper of extreme contrast was used for printing from a thin, over-exposed negative, or the print was over-exposed and over-developed in an effort to bring out the clouds, which otherwise would not have been very pronounced, due to the lack of a cloud-filter. Employment of such a filter and a shorter exposure would have remedied this trouble.

The black tree in the right foreground is very distracting, and might have been eliminated by approaching the mountain with the camera until the tree was out of the field of view. However, this object suggests a touch of the bleak October atmosphere of the Canadian mountains of which this photograph is meant to be symbolical, and had, therefore, better remain within the bounds of the picture, though in a less conspicuous location.

Had the print been trimmed on the left side and the top, bringing the mountain into the very center, better balance would have been created and the black tree would hardly seem out of place.

The subject is otherwise beautifully rendered, and gives rise to good photographic ability.

CURT FOERSTER.

A SUNSET or a sunrise is generally a very gorgeous affair in which masses and lines cut an unimportant figure, the chief attraction being the coloring. A painter with his palette can do the subject justice if he has the genius. But a photographer, dealing in monochrome, cannot do more than hint at color; and to do even that, he must have a polychromatic or panchromatic plate and a suitable filter. From the data accompanying the print, these necessary accessories were lacking.

Again, the exposure must be correct. Of course, a meter would have properly determined the length of time necessary. But, even figuring it out by the Burroughs-Wellcome system, we find that at least two seconds would be needed. The data say 1/25 second. Gross under-exposure!

It may be surmised, also, that the emulsion was

(*Continued on page 50*)

The Exposure-Makers' Competition is discontinued with this issue

First Prize

EXPOSURE-MAKERS' COMPETITION

Photo-finished by
The Russell Studio
Westerly, R.I.

THE VILLAGE-CHURCH — MRS. GRACE FARNSWORTH

Second Prize

EXPOSURE-MAKERS' COMPETITION

Photo-finished by
H. L. Kinsman
Williamstown, Mass.

"HE'S OUT!" — JAMES G. JOHNSON

AWARDS—EXPOSURE-MAKERS' COMPETITION
Subject—MISCELLANEOUS
Closed April 30, 1928

First Prize . . . . . Mrs. Grace Farnsworth
Second Prize . . . . . James G. Johnson
Honorable Mention: Leland H. Croscup; Katharine Matthies; Holgen D. Oleen; Bessie Wood.

OUR ILLUSTRATIONS

WILFRED A. FRENCH, Ph.D.

HERE we have a very striking picture which is a departure from the regulation style of pictorial composition. The unexpected contrast emphasised by the broad band of sunlight running diagonally across the picture would be considered a violation of good taste in pictorial composition were it not for the obvious fact that the picture is glorified by the slender shadows cast by the balcony railing which, in the eyes of Mr. Woodburn, serve the obvious purpose of introducing a pictorial element of a rare and attractive character. Indeed, the critic is disposed to exhaust his supply of laudatory comments. The beginner in pictorial endeavor will spend his time to good advantage by studying the different elements which constitute this remarkably interesting and attractive pictorial composition. Personally, we wish to pay our respects to Mr. Woodburn for his brilliant success.

Data: "The Sun-Flecked Wall"; made in August; about 2 P.M.; good light; Icarette A Camera; 2¼ x 2¼; Hekla lens; 3-inch focal length; stop F/9; no color-screen; 1/50-second exposure; Eastman roll-film; pyro for negative; Amidol for enlarging paper.

The committee in charge of the Fifteenth Pittsburgh Salon deserves the highest praise for its discriminating care in making the awards. Professional painters will find it to their advantage to study in these pictures the artistic elements—ability in composition, lighting, and everything that constitutes a pleasingly executed work of art. We should like to have the space at our disposal for the praise we are strongly inclined to bestow upon the examples of this salon represented in these pages. We, personally, know of no professional painter—and we say this with every feeling of respect for our professional friends of the brush—more capable of measuring his ability in composition, application of light and shade, and other elements that make up a triumphantly successful work of art, than the pictorial workers whose masterpieces glorify the pages of this issue of PHOTO-ERA MAGAZINE.

As the time of day is not suggested in "The Mooring Place"—and the pictures of this series are lacking the usual data—the spectator is at liberty to make his own deductions. The picture is filled with magnetism because of the fact that this feature is not emphasised.

The most discriminating professional art-critic will not be able to resist the well-deserved compliment of taking off his hat to the author of so imposingly artistic a composition as "Roofs of Guedlinburg" by Kenneth D. Smith, page 5. The student in pictorial photography would be sorry to miss the little house in the immediate foreground; it serves the purpose of balance most admirably, and the lighting of the buildings is beyond all praise.

The pictorial interest of "Interlude" is eminently obvious. What a pity, however, that the author, Edwin Bolan, threw his model out of balance by an attempt to introduce too much vigor in the figure. The title is extremely suggestive, and the imagination of the beholder is free to roam through this confined space with almost childish freedom. We do not wish to be personal in attributing too much intellectual play to the face and attitude of the model; in other words, the artist seems to have been a trifle too ambitious in expressing his artistic feelings. All the same, the picture furnishes food for serious reflection and study—all of which is to the credit of the author.

"The Cabby" is one of the most impressive and artistically executed specimens of character-photography that has ever appeared in these pages. Without wishing to offend the author, we cannot help wishing that all this extraordinary artistic skill had been bestowed upon a more deserving model; for the cabby is in no way accountable for the artistic intent of the camerist, which is here shown to be on a high artistic plane. Although the model is covered, we cannot resist the exclamation—"Our hats off to cabby!" although a Londoner may disagree with us in our standard of politeness. Our eye hesitates to leave the contemplation of this fascinating work of art—for such it really is.

Professional painters who have had the advantage of artistic training, even in the famous École des Beaux Arts, may well make their compliments to such masters in pictorial composition, lighting, posing, etc., as are exemplified by David and Eleanor Craig in "Precision", one of the examples of pictorial masterpieces emanating from the Fifteenth Pittsburgh Salon. Brother artists may well envy the pictorial skill of such masters in pictorial composition as David and Eleanor Craig.

The spontaneity of action has rarely been more emphatically rendered than in "The Doryman", page nine, although the observer is at liberty to apply his own interpretation to the boatman's pose. Briefly, it is a masterpiece of pose and artistic lighting.

Nothing less of a complimentary character can be said of "The Spigot and the Shadows", by Gordon H. Coster, one of the gems of the Fifteenth Pittsburgh Salon, which embellishes page 10. It is really wonderful when one realises with what simple means a pictorialist of deep artistic feeling can produce a gem such as "The Spigot and the Shadows". One marvels at the ready application of the artistic possibilities that are at hand in this picture.

The impression conveyed in "The Cigarette", by L. H. Longwell, does not suggest the treatment of a professional painter. We know of many artists of the brush who would have failed, signally, in bringing out from this insinuating model that particular atmosphere which the lens produces so well.

One of the outstanding pictorial gems of this issue, as everyone will concede, is "The Luminous Globe", page 13. The effect is striking and, in a degree, a bit mysterious; for it is difficult to determine just how this spray of leaves is placed—whether within the globe, or without. All that constitutes a joyously composed work of art by means of the camera is here exemplified. Our sincere compliments to the author, Ida W. Pritchett.

The various illustrations designed to set forth the advantages of the Proxar lens for indoor photography are, in our opinion, only moderately successful. "The Millinery Class" is distinctly disappointing, and shows distortion in the upper right section of the photograph. We feel that the long row of empty seats were better omitted. Mr. Lee does not seem to have

exhausted his artistic resources; the composition could obviously be improved.

From Charles Dubois Hodges, a camerist of long experience, comes a group of summer-camp photographs. It is quite obvious that the author has been using the camera with intelligent ability for a long period. The posing, spacing, lighting, and general arrangement are excellent.

The group of figure-studies by Mary E. Archer, page 32, cannot justly escape constructive criticism. Figure 1 is distinctly posed to carry out the author's idea of arrangement. It is symmetrical—too much so to be entirely pleasing. Figure 2 is obviously disappointing, for the little girl and baby sister occupy a space too far to the left, leaving a wide, empty space at the right. In Figure 3, the child occupies the proper space in the picture-area, is pleasingly posed, and forms a charming feature of child life. Figure 4 would appear to be a hasty snapshot. The camerist was evidently afraid the child would escape the lens prematurely. To our thinking, Figures 1 and 3 are the most successful of this group.

For grace and completeness in pictorial composition, the reader will find it difficult to recall a work of art fit to be classed in grace, beauty, and balance with the masterpiece by Zultan Herczegh. It is a choice bit of pictorial endeavor; it should afford profound pleasure to the observer to analyse the extraordinarily delightful points of artistic achievement.

Data: "Harmony"; made in April, 11 A.M.; Studio 5 x 7 camera; Velostigmat lens; focal length, 12 inches; stop F/8; artificial light; 2 seconds' exposure; Eastman film, panoramic; developed with pyro; printed on Buff Platinum Matt.

Advanced Competition

ALTHOUGH the writer has not had the personal pleasure to see the other contributions to the "Table-Top Photography" competition, so delightfully illustrated on pages 41 and 42, he cannot refrain from expressing his admiration for the obvious ingenuity displayed in the arrangement of these miniature scenes. In "Doll-Town", Erwin J. Rebafka has displayed interesting primitive architectural knowledge in his humorous interpretation.

Data: Made in November, 1926; 550 watts (no daylight); 2 seconds; Verito lens; stop F/8; Agfa Chromo Isolar plate; chloride enlargement.

Those who were so fortunate, not long ago, as to witness "Chauve Souris", presented by Nikita Balieff, will recall with pleasure that popular feature, "The Parade of the Wooden Soldiers". Bruce Metcalfe has placed his little manikins with strikingly pleasing effect—an effect that may never have occurred to Mr. Balieff, with his "living" wooden soldiers. The accessories—the trumpet and the drum—suggest ingenuity and imagination on the part of Mr. Metcalfe.

Data: 200-watt bulb; exposure 5 minutes; stop 16; Agfa film; developed with Rytol; Korona 4 x 5 view camera; 6¾ anastigmat lens; enlarged on Wellington hard white.

"Beads", by Edward Alenius, is nothing less than captivating in choice of objects, lighting, and arrangement.

Data: "Beads"; Ica Camera; 3¼ x 4¼; Carl Zeiss lens; 13.5-cm. focal length; stop F/8; 100-watt electric bulb; 1¼-minute exposure; Eastman Process film; M. Q. developer; printed on Wellington Bromoil.

Beginners' Competition

THE individual, obviously in need of a job, has appealed, not in vain, to Dr. Frederic Burcky's alert eye. The figure occupies the proper space, is excellently posed, and the background is sufficiently subdued.

Data: "Help Wanted"; made in Chicago; Graflex camera; 4 x 5; Kodak anastigmat lens; focal length, 6⅜ inches; stop F/6.3; made in June, 9.30 A.M.; dim sun; 1/25 second; film-pack; developed with pyro A. B. C.; printed on Etching Brown paper; paper negative.

Second prize, "Canal Scene, Bruges, Belgium", cannot draw any unfavorable remarks from the writer. It must be admitted that the picture would gain in balance if the shadows which now obscure the interesting architectural detail were less opaque. This is one of the most familiar pictorial objects known to the traveler.

Data: Made by Edw. McMahon; Tessar 4.5 lens; stop F/11; 1/25 second; intermittent sun and showers Eastman film-pack; enlarged on Velours Black; White Matt.

Exposure-Makers' Competition

"THE VILLAGE CHURCH" is filled with poetry. The old building is a beauty-spot among attractive surroundings.

Data: Made in October, 1927; near Garnet, N.Y.; sun shining on the church, which was outlined against a black thunder-cloud in the background; Eastman roll-film; F/6.3; stop 16; 1/25 second; Kodak anastigmat lens. Photo-finished by Russell Studio, Westerly, R.I.

Although it is not obvious to us that the runner is really "out", we do not care to make any comments, as the umpire is on the spot and knows the situation. Mr. Johnson is to be congratulated upon securing so excellent a picture in the face of his subsequent disaster.

Data: Ica Reflex Camera; Carl Zeiss 4.5 lens; bright light, 3 P.M.; made in May; stop F/4.5; 1/350 second; Eastman film-pack. Took my position in front of first base; the runner bumped into me immediately after I had made the exposure and the first baseman had caught the ball. The camera was not seriously damaged, by some miracle. Photo-finished by H. L. Kinsman, Williamstown, Mass.

Our Contributing Critics

(*Continued from page 47*)

over-developed, and the wrong kind of paper was used; a softer grade would have rendered the scene better.

It is a common device to use an object in the foreground to convey an idea of distance. Unfortunately, in this case the pole-like tree fails to do so. The low foreground is too indistinct to make a sufficient impression on the beholder's mind. Consequently, the pole seems to be plastered against the mountains. There are no gradations of distance, and the mountains look like a piece of stage scenery—a scenic flat.

If a sunset-scene is striven for, the whole scene should be given. If a mountain is desired, let there be a mountain with no distracting accessories. In the scene presented we have a divided interest, which weakens the effect. What has the photographer in mind? Mountain or sunset? Take your choice!

Remedy? Take two pices of white paper cut in the form of a capital L and arrange them over the print. Cover over that pole and everything to the right of it. Cut off on the left so that the high-lights on the clouds shall not be in the center. Leave the top and bottom just as they are. Then trim accordingly.

Always use a meter. Don't try color-scenes unless properly equipped.

E. L. C. MORSE.

ON THE GROUNDGLASS

WILFRED A. FRENCH, Ph.D.

Bird's-Eye Views

A WESTERN newspaper reports that airplane photographs taken by two officers of the Royal Air Force flying over Oxfordshire, England, have disclosed a number of evidences of buried archæological remains whose existence had never been suspected, though the fields where they are situated have been in cultivation for many years. The bird's-eye view effect of a photograph taken from the air, enabling the observer to perceive as a whole what can be seen from the ground only as obscured details, is credited for the discovery. Two great circles, one within the other, lying under a field planted partly in barley and partly in beans, were among the finds. The bean-field parts of the circles were discovered first, for the rest was concealed by the growing grain. Near the circles was a rectangular inclosure which had no relation to existing field divisions. A semicircular inclosure, possibly prehistoric, and a track some forty feet wide of Roman-British origin, were also shown up on the plates.

Washington "Pealed All Round"

IN Goodspeed's Catalog of Prints, published in Boston, we read with interest the following anecdote concerning one of the many portraits of George Washington:

"Rembrandt Peale from earliest boyhood had a great veneration for the person and character of Washington, and became possessed of a strong desire some day to paint him from life. When the boy was seventeen, his father, Charles Willson Peale, brought the matter to Washington's attention, and pleaded for a sitting. Washington granted three, of three hours each. At the first one the boy was so excited that he could not work. His father promptly set up an easel beside him and all went well. At the next sitting, while his father painted on his right, his uncle, James Peale, painted on his left, and subsequently his older brother, Raphael Peale, seized the occasion to make a profile sketch. Apropos of this sitting, Gilbert Stuart advised Mrs. Washington to have a care, for it looked to him as if her husband was being 'Pealed all round'."

Pirie Macdonald and Good Will

THOSE who have been impressed with the incisive personality of Pirie Macdonald, the "Photographer of Men", whose success is due largely to his incisive business methods, will be interested to read the following excerpt of his address before Boston Rotarians at the Statler Hotel in Boston on May 2, speaking on "Our Sixth Object" as his topic. This, Mr. Macdonald said, was "the advancement of understanding of international fellowship and peace through service and good will. Good will has become a popular sentiment, with the emphasis on 'popular'. Good will should be a manifestation of justice, and Americans must drop their provinciality by understanding a problem to know justice. Justice and morality of the individual mould the policy of the government. In the United States, industry has become the sole virtue, with other things neglected. Unfortunately, there are Americans abroad in France and in England who swagger around saying 'We won the war', forgetting that those countries gave their last bit of man-power to stem the tide while America was preparing. Fair play is the peacemaker, and every American must go after good will if this country wants to preserve its national spirit; for things of the spirit must come before business".

This address brought Mr. Macdonald even more prominently before the public than before—all the direct result of a commodity commonly known as "brains", on which there is, obviously, no patent. Now, why should this not serve as an object-lesson to other photographers? They, as a rule, prefer to confine their mental processes to the demands of the studio. Professional apprehension may deter some from dwelling too strongly on their own private business methods. It may be well to give a thought or two to methods which Pirie Macdonald would scorn to resort to—house-to-house canvassing; soliciting by agents—a method that has done much to affect the dignity of the profession. Some of the persistent variety have no regard for the privacy of the home, and do not hesitate to intrude offices and homes to solicit business. How different is the above method from that of sending out well-dressed, attractive, and refined women-agents, to explain the advantage of patronising So-and-So's attractive portrait-studio, which welcomes you by reason of its neat, artistic, and refined atmosphere! Some persons have been so thoroughly annoyed by visits from persistent agents that all they wished to do was politely to show them the door. Equally annoying is the importunate habit of soliciting by telephone, when a seductive voice urges the lady of the house, or the busy business man, to come to the Skylight Studio for a complimentary sitting, urging an early appointment. Although the sitting is complimentary, the alluring finished proofs are not; and the sitter, unable to resist their appeal, soon finds herself induced to give an order that she has not previously considered and may regret later, when the moment for payment arrives.

Noiseless Children

A HIBERNIAN paterfamilias remonstrated to his wife against the noise of the children, and expressed the wish that they be kept in the nursery while he was at home. He added, considerately, "I would not object to their noise if they would only keep quiet".

Contact.

More Slow Motion

"YES, I had just one kiss last night."
"What was the matter?"
"Oh, nobody interrupted us."

Thru the Darkroom Door.

Buried Alive

THE following notice was found on an Irish church door: "This is to give notice that no person is to be buried in this churchyard but those living in the parish".

Exchange.

THE MONTH IN APPLIED PHOTOGRAPHY

C. B. NEBLETTE, A.R.P.S.
Division of Photography, A.M., College of Texas

Vienna School of Photography Celebrates its Fortieth Anniversary

THE world-renowned Graphische-Lehr und Versuchanstalt of Vienna, the oldest and one of the most famous schools of photography in the world, recently celebrated its fortieth anniversary. Prior to its establishment by Dr. Eder in 1888, there was no real school of photography anywhere in the world, although Dr. H. W. Vogel had for a number of years previously conducted a Department of Photochemistry in the Berlin Technical High School.

The history of the establishment and the development of the institution is very largely the biography of its founder, Dr. Joseph Maria Eder. Dr. Eder began the study of photochemistry in 1879, while an assistant in chemical technology in the Vienna Technical High School. His first important work was on the photochemical properties of chromium salts. This was followed by a lengthy series of investigations on the preparation of gelatine-emulsions and on color-sensitising, to both of which he contributed materially. At about this same time he issued his encyclopædic treatise "Ausführliches Handbuch der Photographie", a complete treatise on the theory and practice of photography, which is today, nearly forty years later, still the most comprehensive and authoritative work on the subject, and which is now being reissued in a new edition.

This work led to a Government grant for work on spectrum analysis, which resulted in his extensive and important series of investigations in photography as applied to spectrum analysis. In 1888, convinced of the need for an institution devoted to research and instruction in photographic technology and in applied photography, with the assistance of the Government he established the Graphische- Lehr und Versuchanstalt für Photographie und Reproductionsverfahren. Under the energetic leadership of Dr. Eder the school became something of a focal point for research work and for instruction in the various branches of photography, both pure and applied, and grew steadily, though somewhat slowly. Dr. Valenta was added to the faculty a few years after its establishment, and various others of high standing in their respective fields were added from time to time. Dr. Eder continued as director until 1923, when he was succeeded by Dr. Valenta. He, in turn, was succeeded last year by Professor Junk.

Motion-Pictures and Our Foreign Trade

No catalog of our larger mail-order houses was ever more effective in creating a demand for the products of that house than the American-made motion-picture is creating for American-made products in foreign countries. The film has been quite aptly called an "animated catalog", and it is a very subtle one at that; for its salesmanship is utterly void of any attempt at selling. Yet people the world over are being guided more and more by what they see on the screen. Due to the motion-picture screen, the California bungalow is popular in certain South American countries. Stenographers in Paris, after having seen the well-lighted and commodious offices typical of American firms, protested against their dark, cramped, and ill-ventilated quarters. British shoe-manufacturers overhaul their plants in response to a demand for shoes similar to those which they see on the feet of the American movie "queens". And so the story goes. The Department of Commerce estimates that every foot of film exported results in a return of at least a dollar in trade—and last year our film exports amounted to 231,995,018 feet. In these days, trade is not only following the flag; it is also following the film!

Motion-Pictures for Posterity

WE have had something to say previously regarding the advisability of preserving certain worth-while motion-picture productions of the present day, and we are again led to revert to the matter by an announcement, in *The Motion Picture*, that two news-reel records of the flights of Lindbergh have been assembled and are now ready for distribution. One of these is known as "Forty Thousand Miles with Lindbergh", and has been assembled and is being distributed as a program feature by Metro-Goldwyn-Mayer. The other has been collected and is being handled by the Motion-Picture Producers and Distributors of America. This last is not for general distribution, but is to be circulated among schools, societies, and elsewhere strictly as a pedagogic and non-commercial enterprise. It is to be hoped that at least one of these productions will find its way to the vaults of the Smithsonian Institution—that institution endowed by James Smithson "for the increase and diffusion of knowledge among men".

Aërial Survey to Be Made of Rio de Janeiro

ACCORDING to the *Times* (London), the Aircraft Operating Company of London has been engaged by the city of Rio de Janeiro to prepare for the city planning commission a photographic map covering not only the city but the entire Federal district in which the city is situated, a total of some 450 square miles. The most interesting point in connection with the contract is the comparatively large scale upon which the mapping is to be done. The city proper is to be mapped on a scale which is very nearly 63 inches to the mile, and the outlying districts and the Federal district are to be mapped on a lesser scale averaging about 30 inches to the mile. Such large-scale mapping has not hitherto been the province of aërial photographic surveys, but has been left almost entirely to the ground surveyor.

It has been estimated that a ground survey of the area, at the scale required, would demand approximately twelve years, while it is hoped to complete the aërial survey within three years. In fact, the first portions of the map are promised within eight months after operations have begun. The undertaking is referred to by the *Times* as the most important contract ever received by a British air-survey firm.

LONDON LETTER

CARINE AND WILL CADBY

THE air, and particularly that of London, has been filled with conferences lately. If all the resolutions so energetically proposed and seconded were really put into practice, what an enviable state of efficiency we should be in! Instead of which, we are only slowly crawling out of a bad time of trade depression. It is obvious, of course, that were all going well we should be too busy working to have time to confer. Conferences, like doctors' visits, prove the body is sick, and the fewer there are, the better for the body.

The Professional Photographers' Congress, however, which is in session just now, is a nice healthy variety of conferences. Although part of the professional photographic trade has been suffering from a slump, it is not being held on that account, but because for years—good and bad—it has been a cheery, helpful, and most stimulating experience for professional photographers all over the country. This year they have Mr. Ferd Flodin of Stockholm coming to talk to the members. It is always a matter of regret that this May month is the most difficult time for American photographers to get away and join in the Conference, and last year an effort was made to see if the Congress could not be postponed until the autumn; but it was discovered that it would mean a great falling off of British members, for whom a later date was impossible.

A new feature of the Congress will be a prize given by the President for the best all-round photograph made in the Congress studio, so that the interest of a competition is added to the lectures, demonstrations, and social functions.

The King was out riding in the Great Park at Windsor lately, and, as he approached the double gates at the top of the Long Walk, two girls, who had been waiting for hours, tried to get a snapshot of His Majesty. Of course, they were frustrated in the scheme, as one never knows what lurks behind an innocent-looking camera.

The King, however, noticed the incident and the girls' frank disappointment, and immediately asked them if they wished to make his photograph. They admitted they did, adding that they were ignorant of the rule against it. His Majesty at once pulled up his horse and good-naturedly posed for them, smiling as he cantered away.

Such considerate, kindly behaviour is so usual with our Royalties that it passes almost unnoticed. But the interesting point is the effect on the girls. They were suddenly confronted with the chance of their lives. The King was posing for them, and for them alone. Were they equal to making the most of their good fortune? Was the film in order and fresh? Did the shutter work properly, and was the position chosen good? These are questions we should like to ask those lucky young women, for they had the unique chance of getting a natural and characteristic study of our most exalted personage without any of the pomp and ceremony that generally envelop him in public and which is such a handicap to the photographer.

Photography came in for some illuminating remarks from Sir Frank Dicksee at the annual dinner of the Art Board held at the Lyceum Club, Piccadilly. The question of mechanisation was being discussed, and Mrs. Champion de Crespigny, who presided, said it was going to have a very great effect on our outlook on art. Intellect was being developed, but the emotions and the heart were not considered as they were in the past. That was why we owed so much to our great painters.

Sir Frank Dicksee in reply said that if war became mechanical and the romance of it was abolished, then perhaps it would cease to be. But in the case of art they did not want to be treated in this way. Photography, however, if wisely used, would extend their horizon and enable them to achieve things that they otherwise could not. But it had been harmful in many ways. Although instantaneous photography had demonstrated that a race-horse could not have all its legs stretched out as the old-fashioned racing prints would have us believe, instantaneous photography could not be entirely depended on to express action.

Naturally, Sir Frank was considering photography from the purely utilitarian painter's point of view, and could not have anything to say as to its pictorial qualities. But so honest a statement of its uses to the painter is refreshing and sensible, and those artists who would have us believe that they scorn the camera, even as a notebook, are either neglecting a particularly useful tool or are doing something worse, for which our transatlantic readers have several entirely satisfying expressions.

There have been two one-man pictorial exhibitions running concurrently at the rooms of the Royal Photographic Society. Taken as a whole, Mr. John Vanderpant's show is the most interesting, at least from our point of view; for he boldly relies on purely photographic resources, and succeeds in getting a great amount of tonal interest out of limited subject-matter. For, when all is said and done, tone-rendering is one of the very strong points of our craft. We may evolve a fine design, a faultless composition; but if our interpretation of the tone-values of the picture is faulty, it will lose half its charm and all its truth.

Mr. Alexander Keighley, the other exhibitor, has for many years given us beautiful renderings of nature; but his work has a sameness when continually repeated. We know a "Keighley" landscape at a glance without looking close for the signature; and as the years pass by, we can follow the gradual development of thought and style that have led him on, as one writer expresses it, to "a general resemblance to the work of the weaker members of the Barbison group of painters". Now, our original photographic work may by chance appear somewhat similar generally to other graphic arts; but it surely should not be possible to label it as following one particular school of painting. It is doubtless one of our faults as photographers that when we achieve success in one direction in picture-making, the inclination is to stick to that particular style, instead of bringing our accumulated experience to bear on new themes and fresh treatment. Perhaps it is human nature to follow along established lines rather than to take possible risks in uncharted seas of photographic technique and artistry.

HERE, THERE AND EVERYWHERE

To ensure publication, announcements and reports should be sent in not later than the 5th of the preceding month.

Elysian Camera Club, Hoboken, N.J.

THE Elysian Camera Club of 307 Washington Street, Hoboken, N.J., recently held its annual meeting, re-electing the following members to office to serve for the coming year: Charles Westerburg, president; Martin Crane, vice-president; George Sting, treasurer and recording secretary; Karl Klokow, Jr., corresponding secretary.

In a brief address, President Westerburg thanked the officers and the members of the Club for their co-operation during the past administration, and touched upon the progress which the Club has made in the course of the year.

Particular attention was drawn to the frequent print interchange exhibits conducted by the Associated Camera Clubs of America, of which Elysian is a member. These exhibits are representative of the work of many of the foremost pictorialists in America, and President Westerburg pointed out the great influence which they have upon the general photographic work of the members.

Many plans for the furtherance of the Club's activities were suggested and discussed, and arrangements were immediately made to put several into effect.

The Elysian Camera Club was organized in 1902 in the interests of the amateur photographer, and it is fully equipped to do all kinds of amateur work, including portraiture, enlarging, and lantern-slide making. It enjoys the distinction of being the only camera club in Hudson County, N.J. There are thirty-five members.

The general public is always welcome to visit the clubrooms and review the exhibits. Amateurs who are experiencing some difficulty in connection with photography are invited to communicate with the Club. This entails no obligations.

KARL KLOKOW, Jr., *Secretary.*

New Zeiss-Ikon Catalog

MOST of our readers already know that Zeiss-Ikon is the amalgamation of the well-known firms of Contessa-Nettel, Ernemann, Goerz, and Ica—Europe's largest camera-makers. The new catalog recently issued by Carl Zeiss, Inc., 485 Fifth Avenue, New York City, includes the latest in distinctive and advanced models of Zeiss-Ikon cameras. Although the photographic equipment made by these leading camera- and lens-manufacturers is known to be of excellent quality, it has not been generally known that there are now available several models of cameras at a very reasonable price. In fact, some are priced as low as $16. It may be said that there is a camera for every photographic requirement. Roll-film, film-packs, cut-films, and plates may be used according to the particular model selected, and there is variety enough to satisfy the most critical. The Icarette DA, Nixe A and B, are equipped to use roll-films, but can be used with film-packs, cut-films, and plates as well. The Orix press outfit offers exceptional value for the money, and should interest all those who make pictures for publication. Copies of this new catalog will be mailed promptly to those who will write to Carl Zeiss, Inc.

Film-Packs in Aërial Photography

IN our May, 1928, issue there was an article by the Editor on the subject of aërial photography. In the course of his observations he stated that he failed to obtain results with a camera which used film-packs. He advanced the theory that probably there was a leakage of light in or around the film-pack due to the high air-pressure. It may be of interest to readers of PHOTO-ERA MAGAZINE to learn that experienced professional cameramen overcome this difficulty by pulling out the tabs, *but not tearing them off*. In short, by allowing the tabs to remain undisturbed, after being pulled out, there is no opportunity for light to leak in through torn ends of tabs. We are indebted to one of our readers in the military service for this very helpful and timely bit of advice. We shall be very glad to hear from any of our readers with regard to airplane photography.

Photographing 4,000 Meals a Minute

ACCORDING to a news-despatch from London, England, the officials of the London Zoo have finally solved a mystery which for some time caused them considerable puzzlement. It was concerned with a Spanish toad, whose diet was worms. Periodically, when the toad was fed, a plate containing a number of worms was placed in front of the creature.

The worms would disappear, but no observer could see that the toad was eating them. There was something magical, uncanny, about the way the worms would fade out. One moment a worm would be there and then it would be gone, vanished into thin air, and without visible movement on the part of the toad.

Of course, the scientists connected with the zoo knew there was nothing supernatural about it. The worms undoubtedly fulfilled their missions as meals for the toad. But how did they get into the toad's stomach in such a manner that nobody could see it? They knew that the toad reached out its tongue to pick up the worm. But they couldn't see him do it. Apparently he was eating so fast that they could not follow his movements with the naked eye.

They thought that perhaps the camera might catch what their eyes could not. They made pictures of the toad eating. They could find no trace of the worm *en route* to the throat of the toad. They tried motion-pictures, and these revealed nothing. The movement of the toad's tongue was faster than the ordinary rate of speed of a normal motion-picture. They tried slow motion-pictures. A film was made at the rate of one five-hundredth of a second per exposure. When the film was developed, nothing was found that differed from the view obtained by the naked eye.

Another film was made, this time at three times the speed. Then it was seen that the meal-worm disappeared on the toad's tongue. The movement was so quick that the toad could devour about sixty-six worms per second, or at the rate of about 4,000 meals per minute.

The New German "Society for Stereoscopy"

RECENTLY the Deutsche Gesellschaft für Stereoscopie, Kurfurstenstrasse, 125*a*, Berlin W. 62, Germany, was organised for the sole purpose of arousing and maintaining interest in the scientific and artistic applications of stereoscopic photography. Membership is open to individuals, dealers, and manufacturers who are really interested in any or all branches of stereophotography. We understand that this is the first society of its kind in Germany. Descriptive matter and application blanks may be obtained by addressing the Society.

Winona Summer School of Photography

WE have received a very attractive folder which describes the courses and instructors of the Winona Summer School of Photography conducted by the Photographers' Association of America at Winona Lake, Ind. There is a Portrait Course, August 6 to 31, and a Commercial Course, July 23 to August 4, 1928. Attendance is limited to one hundred in the Portrait Course and to forty in the Commercial Course. Mr. Will Towles of Washington, D.C., who has served for the past six years, will again be director of the school. He has gathered about him a staff of experienced and well-known instructors. Members of the Photographers' Association of America are eligible to attend the summer school. Further details may be obtained by addressing the Association at 2258 Euclid Avenue, Cleveland, Ohio.

P. A. of N. E. Convention, Maplewood Club, Bethlehem, N.H.

WE are especially glad to call our readers' attention to the fact that the 1928 Convention of the Photographers' Association of New England will be held September 11, 12, and 13 at the Maplewood Club, Bethlehem, N.H. We attended two conventions of the Association held at Maplewood, and can vouch for the excellence of the accommodations, the magnificent scenery, and the splendid comradeship which existed among those who attended. Perhaps there is no more beautiful spot in the whole White Mountain region; and the eighteen-hole golf course, outdoor swimming-pool, tennis courts, trapshooting range, and fifteen hundred acres of club property afford every opportunity to enjoy New Hampshire.

Some very special prizes are being offered this year in the Print Exhibit, and there are to be ten awards with silver trophy cups in each class. Further particulars may be obtained from Secretary George Hastings, 71 Madison Avenue, Newtonville, Mass. All prints must be at the Maplewood Club on or before September 7. As yet, the details of the program have not been worked out; but the fact that the convention is to be at Maplewood should be sufficient to draw a large number, no matter what the program may happen to be.

Bethlehem, N.H., is about seventy miles from Wolfeboro, Lake Winnipesaukee. We suggest now that members of the Photographers' Association of New England plan to include the lake-region on their way to or from the convention. By September many miles of new highway will be completed in all sections of New Hampshire, especially on trunk lines such as pass through Bethlehem and the White Mountain region. From our personal experience at two previous conventions at the Maplewood Club, we know that those who attend will have three days of carefree, yet profitable, relaxation. *We* know that we shall have a splendid trip before we start.

Brooklyn Institute—Photographic Department

OFFICERS AND EXECUTIVE COMMITTEE, SEASON 1928–29

J. W. Aughiltree . . . . . *President*
J. Milton Bergen
Vice-President, in charge of educational work
A. Merrell Powers
Vice-President, in charge of technical work
Harry D. Scribner . . . . . *Secretary*
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Chairman Committee in charge of technical work
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Chairman Monthly Exhibition and Print Exchange Committee
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Chairman Membership Committee
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Chairman Books Committee
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Chairman Shipping Committee
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Chairman Contests Committee

MEMBERS EXECUTIVE COMMITTEE AT LARGE

Mrs. Antoinette B. Hervey — Jos. Kraysler
V. E. Duroe — H. R. Cremer
Thos. Blake

Army Aviators to Photograph Florida Coast

AN aërial photographic detachment is about to leave Bolling Field for the purpose of making an aërial map of the eastern and southern coast of Florida for the Coast and Geodetic Survey.

The detachment consists of Lieutenant Julian S. Dexter, pilot and photographic officer, Master Sergeant Matos, photographer, and Private Irving Kallmyer, mechanic. The airplane to be used is a Loening Amphibian similar to those used on the recent Pan-American flight. It is capable of operating from either land or water, which makes it particularly adaptable to this type of work.

The detachment will photograph a strip approximately ten miles wide along the east coast from Flagler Beach to Jupiter Inlet, a distance of nearly two hundred miles, which contains the widest portion of the Indian River, and from Miami to the town of Everglades. The total area to be photographed is approximately 2,500 square miles. This will be

accomplished in about six weeks. The new Army Air Corps four-lens mapping camera will be given its first extensive service-test in the accomplishment of this project. Operating from an altitude of about two miles, the scale of the photographs will be 1 to 20,000. Because of the inaccessibility of these areas, accurate data is not obtainable by terrestrial survey.

This is another example of the value of aërial photography in mapping projects. In addition to furnishing more detailed and accurate data than is obtainable by other means, aërial surveys are accomplished in a much shorter time and usually at less expense. For the survey of such regions as the Everglades of Florida, aërial photography has proved invaluable in providing information regarding sections the nature of which has rendered them entirely inaccessible to human beings. In this, as in other demonstrations of the commercial value of the airplane, the Army is the pioneer.

To Hold Preliminary Conference on Simplification of Photographic Equipment

THE Division of Simplified Practice of the Department of Commerce has been invited to co-operate with the manufacturers of photographic equipment in applying the principles of Simplified Practice to such items as screw threads for lens-mounts, shutters, and so on.

Preliminary details incident to the organisation of a survey of present production and demand were considered by a conference of manufacturers of these commodities on June 18. The meeting will take place under the auspices of the Division of Simplified Practice, in the conference room of the Engineering Building, 29 West 39th Street, New York City.

Quick Photographic Work by Air Corps Personnel

THE 6th Photographic Section, Air Corps, stationed at Camp Nichols, Rizal, Philippine Islands, recently gave a demonstration of the speed at which photographic work is capable of being performed. During the Philippine Division Maneuvers, a photographic plane took off from Camp Nichols at 11 A.M., in charge of Lieutenant George W. Goddard, Air Corps. The plane was flown to the locality where the maneuvers were held, and pictures were made covering an area of forty square miles. This necessitated the making of several hundred photographs.

After mapping this scene from the air, the plane returned to Camp Nichols, where the individual photographs were developed and printed during the rest of the afternoon. The enlisted men of the 6th Photo-Section sacrificed pleasures and sleep in order to fit minutely the different pictures into one complete mosaic. As a result of their efforts, a large composite map was delivered to the Philippine Department Air Officer before 10 A.M. the next day. The entire operation from the time of leaving the air-field until delivery was made totaled less than twenty-four hours.

Next Thing Is to Puncture Fog

FOG is one of the worst terrors of aviation. When fliers run into a fog bank, they become dependent upon their instruments to guide them. Fog over the ocean is especially formidable. Fliers must often wish they could shoot holes through the fog instead of having to plow through it blindly.

Well, the time may come when even the terrors of fog will be done away. Attacks are being made upon it by experiments with light rays. For one thing, it has been found that the pink rays of the Neon light penetrate fog for considerable distances. Beacon lights of this character have been set up for experimental purposes at several airports.

Another discovery which may unlock the secret of conquering fog has been made in tests of the infra-red rays of light—rays which are unseen by the human eye. These rays are said not to be affected by atmospheric conditions, such as fog and cloud. A person sitting in apparent darkness, but really flooded with these rays, can be photographed; and apparatus is available for throwing these rays two hundred miles through space. Suppose an airplane to be equipped with the machine for producing and projecting these infra-red rays, and a camera or some quicker implement for interpreting what those rays make visible! That would beat the fog terror pretty neatly.

Boston Traveler.

Eric J. Cederberg With N. Y. Institute of Photography

THE New York Institute of Photography, 10 West 33d Street, New York City, has added to its staff, as the head of the Motion-Picture Department, Mr. Eric J. Cederberg. Mr. Cederberg has been actively engaged in motion-picture work for several years, having made a trip around the world for Kinemacolor, filmed the great Indian Durbar, and later shot some of the greatest screen successes. His later work includes such favorably known productions as "The King of Kings", "In Old Kentucky", and other outstanding features.

This addition to the staff of the New York Institute of Photography ensures the best possible, up-to-date, and thorough instruction for its students.

Pinkham & Smith Co. Salesmen Win Eastman Prizes

THE January, February, and March issues of the *Kodak Salesman* advertised a contest in which prizes of $50, $25, $15, and $10 respectively were offered for the four best sales-talks that a man behind the counter could use to persuade a Brownie inquirer to buy an F/6.3 Kodak. The results of the contest showed that many retail salespeople appreciate the value that a fast lens adds to a camera and know how to express this value in terms of pictures. Donald H. Court of Pinkham & Smith Company, Boston, received the second prize of $25; and Frank S. Holmes of the same company was awarded First Honorable Mention. We compliment Pinkham & Smith Company for having two such efficient and enthusiastic salesmen.

Organization of the Pittsburgh Salon 1928–29

THE Photographic Section of the Academy of Science and Art of Pittsburgh has elected officers for the coming year as follows: President, Charles K. Archer; vice-president, David R. Craig; secretary-treasurer, Byron H. Chatto; Executive Committee—George H. Morse, O. C. Reiter, and P. F. Squier.

Associate Members of the Pittsburgh Salon elected this year are: Robert A. Barrows, Philadelphia; Ralph B. Bonwit, Baltimore; J. Walter Collinge, Santa Barbara; Fred R. Dapprich, Los Angeles; J. Ortiz Echague, Madrid, Spain; Johan Helders, Ottawa; Hon. Alexander Keighley, England; Prof. Rudolf Koppitz, Vienna, Austria; George H. Morse, Pittsburgh; William H. Rittase, Philadelphia; Miss Clara E. Sipprell, New York City.

The annual Salon will be held, as usual, next spring, the exact date to be announced later. Address all communications to the secretary.

B. H. CHATTO, *Secretary.*

THE EDITOR'S CORNER

Photo-Era Trophy Cup Scores Change

As the final lap of the PHOTO-ERA Trophy Cup Race approaches, there appears to be a sudden determination on the part of camera club members to try to score. Furthermore, club secretaries have been checking up records and co-operating with us, so that as the race draws to a finish our records may be absolutely correct. At the end of the May competitions, and a correction made by the Brooklyn Institute, the standing of the competing clubs changed. Dr. Max Thorek of the Fort Dearborn Camera Club won First Prize in the Advanced Competition, and the Third Prize was won by Gordon H. Coster of the Baltimore Photo Club. The First Prize in the Beginners' Competition was won by G. Y. Tange of the Cleveland Photographic Society. Based on the last carefully checked records, the standing of the clubs at the end of the May competitions was as follows:

Seattle Camera Club	2
Brooklyn Institute	3
Fort Dearborn Camera Club	3
Cleveland Photographic Society	5
Syracuse Camera Club	1
Wilkes-Barre Camera Club	1
Baltimore Photo Club	1

Our Thanks to Mr. Miller

DURING the past few years a number of our readers have written in to ask whether or not Editor A. H. Beardsley might not be related to persons of the same name in various parts of the United States. Naturally, we are always interested; but we regret that our knowledge of heraldry and genealogy with regard to the Beardsley family is not comprehensive enough to answer inquiries with any degree of accuracy. Some time ago we received a letter from an A. H. Beardsley out in the Middle West, and we tried to arrange a meeting while he was in the East; but unexpected difficulties prevented. Recently, Mr. Robert R. Miller of Dallas, Tex., a contributor to our pages and competitions, sent us a clipping of a picture of Judge H. M. Beardsley of Kansas City, with the question as to whether we were related to the Judge. We wish we knew. We thank Mr. Miller for sending the clipping, and perhaps some day we shall have an answer for him. Incidentally, Mr. Miller won first prize for photographs at the annual allied-art exhibition of the Dallas Art Exhibition held recently.

The 1928–29 Photo-Era Trophy Cup Race

WE are already looking forward to the 1928–29 Trophy Cup Race, which will start with the September, 1928, competitions. At this time we wish to call attention to several important changes which are the result of constructive suggestions.

It will be recalled that we asked our readers for suggestions as to how our competitions might be made more interesting and helpful. We also asked for a definite expression with regard to whether or not to have specified subjects each month, or to have each competition miscellaneous. *The vote was better than seven to one in favor of specified subjects.* However, changes in the subjects were suggested, and the advisibility of having at least two miscellaneous competitions during the year.

With regard to the PHOTO-ERA Trophy Cup competition, beginning with the 1928–29 race each winner of a First Prize award will receive a credit of three points for his club; the Second Prize winner, two points; the Third Prize winner, one point; and each winner of an Honorable Mention Certificate will receive a credit of one-half point for his club. This will become effective with the September competitions.

We wish to express our sincere appreciation for the hearty co-operation which has been given us by readers in all parts of this country and overseas. It has helped us immensely.

We Are Glad to Serve You

FOR over seven years PHOTO-ERA MAGAZINE has been edited and published at Wolfeboro, on the shores of Lake Winnepesaukee, among the foothills of the famous White Mountains of New Hampshire. There were those who said that it would be suicidal to leave Boston and try to do business "up in the North Woods". In fact, we were given just six months for our stay in Wolfeboro. It was then predicted that we would either go out of business or get back to Boston as best we could. We are still in Wolfeboro happy, contented, and better physically than we ever were in either New York or Boston. Some things we are obliged to miss; but we have others which compensate, and, to us, are really of greater permanent value.

We have noticed the steadily increasing number of our readers and friends who come to Wolfeboro for a pleasant call or to spend their vacations. In fact, we have become somewhat of an information bureau for those who are looking for accommodations. As we are members of the Wolfeboro Chamber of Commerce and the Wolfeboro Rotary Club, it is our pleasure to serve our readers in whatever way we can, so that their visit to New Hampshire and to Wolfeboro will always remain a pleasant memory.

Furthermore, we like to have our readers and friends see for themselves the beautiful natural surroundings in which we are privileged to edit PHOTO-ERA MAGAZINE. Is not the sparkling sunshine on the dazzling blue waters of a mountain lake a greater inspiration for any endeavor than the grimy, smoke-filled, wall-surrounded court common to many city office buildings? Then, too, is not a quiet five-minute walk from the house to the office, in the fresh morning air, amid glorious scenery, preferable to the subway or elevated crush, or the rush of the suburban commuter? We know that it is, from many years' personal experience in the New York and Boston subways. Of course, we shall not insist that our friends stay in Wolfeboro one moment longer than they wish. However, we have noticed that those who have come seem to be in no hurry to leave. The mountains, hills, and smiling waters of the Winnepesaukee region "get them" as it "got us".

THE AMATEUR KINEMATOGRAPHER

HERBERT C. McKAY, A.R.P.S.
Dean New York Institute of Photography

Panchromatic *versus* Ordinary Film

THERE has been considerable agitation recently regarding the relative merits of the panchromatic film and the ordinary emulsion for amateur work. One would think from some of the current statements that no film could be possible unless the panchromatic emulsion were used, and on the other extreme we have those who believe failure inevitable when using panchromatic film.

In considering this subject dispassionately we find that, as is usually the case, there is much to be said on both sides. If we analyse the situation in the light of motion-picture theory, it will be easy to arrive at a conclusion sufficiently accurate for all practical purposes.

Amateur kinematography existed five years and made wonderful progress without the aid of the panchromatic emulsion, and even today this emulsion has not been fully accepted in the amateur field; but it is available, and in view of the present professional attitude it must be considered. Officials report that a year ago the studios were using approximately 85 per cent. orthochromatic (ordinary) and 15 per cent. panchromatic, but today the percentages are almost exactly reversed.

The true ordinary photographic emulsion is sensitive only to the blues and the ultra-violet rays; but those emulsions which we commonly call ordinary, such as ordinary motion-picture film, roll-film, pack-film, and similar material, are so highly orthochromatic that a few years ago they would have been so labeled. However, their sensitivity drops rather abruptly in the green, giving us lost values in the yellows, oranges, and reds.

The panchromatic film, on the contrary, gives us sensitivity to the entire visible range of color, but in degree varying with the colors. There is at least one film on the market which has a double curve, being more sensitive to red than to green, and most sensitive of all in the blue. (The writer has not confirmed this statement by personal experimentation.) It is evident that such a film must inevitably give us better color-values, and thus a more satisfactory reproduction than the orthochromatic. It is a fact well known to still photographers that no emulsion can compare with the panchromatic for exterior work; but, strangely enough, the panchromatic motion-picture film is advocated very strongly for interior work.

One of the greatest objections to the panchromatic film has been that it is "slower" than ordinary film. In addition to this, filters must be used for full color-correction; so that in ordinary work we would double the exposure for the inherent lack of sensitivity of the film, and then multiply this exposure by four or five to compensate the loss of the blue through the use of a K-3 filter. This means that, in practical application, the film requires some ten times normal exposure.

The panchromatic motion-picture film now used has a basic speed equal to that of the ordinary. It is used without filters, and, due to certain factors which we shall consider later, it is actually more sensitive than the ordinary film, enabling us to make motion-pictures under conditions where we should meet only only failure with the ordinary film!

Briefly, the claims made for the amateur panchromatic film are increased sensitivity with artificial light, more truthful color-values with increased quality, and possibility of making fully exposed film at moderate apertures with incandescent light.

It would seem that the last claim is based upon the increased sensitivity, but this is not true. In working with artificial light, the amateur has heretofore largely used the white flame arc. The carbons in these arcs are made for the express purpose of giving an excess of blue and ultra-violet in the region which will penetrate the lenses. In consequence, this light gives harsh shadows and great contrast of both light and color. This, in turn, requires rather careful handling in order to obtain a well-lighted picture. This is even more difficult in the case of the amateur, who is not used to judging arc illumination.

The commonplace illumination in homes is by means of the incandescent light. We are familiar with this lighting, and it would evidently be an advantage if the amateur could use this equipment in his motion-picture work; but the incandescent has an abundance of red and yellow light, and comparatively little blue in its make-up. So, in the case of the arc, we have far more photographic light than is present in an equal amount of daylight; and the incandescent has a far smaller percentage than daylight. It is evident, then, that initial candlepower is no basis for the comparison of arc and incandescent when ordinary emulsions are used.

When, under these conditions, we substitute for the ordinary emulsion one which is highly sensitive to the red, we practically reverse conditions in so far as lighting-conditions are concerned. Moreover, due to the abundance of yellow and the absence of blue in the incandescent, it is not necessary to make use of a corrective filter. In consequence, we find that under given conditions in which incandescent lighting is used, the panchromatic film is considerably more sensitive than the ordinary. One manufacturer of sixteen-millimeter panchromatic film told the writer that the panchromatic film, under such conditions, was from *four to ten times* as fast as the ordinary emulsion! In other words, this film solves the indoor motion-picture problem and even makes unnecessary the ultra-speed lenses which have been sold so widely for indoor use. This is a decided advantage; for although such lenses are indispensable under some conditions, and should be in the possession of every amateur, their shallow depth of field makes them difficult to work with in close-up and semi-close-up work, which constitutes a great proportion of indoor shots.

It can be seen that with panchromatic film it is possible to make fully-timed exposures at F/3.5, when, under the same conditions, using ordinary film, F/1.8 or even F/1.5 would hardly suffice.

There is another angle to this work. The white-flame arc is very inconvenient and, in fact, often painful to work under, due to the excess of the ultra-violet. Although Kliegl-eye is hardly a common ailment among amateurs, many, far too many, amateur actors are familiar with that particularly painful headache which is the result of working under the white-flame.

It would seem that this work has sounded the knell of the arc light. Such is *not* the case. Almost coincidently with the rise of the incandescent studio-lighting (professional), a new carbon was introduced for both professional and amateur lamps. This carbon gives a soft orange-red flame which seems strangely dim and dull after the searing white flame, but it is scientifically compounded to give a spectrum almost complementary to the sensitivity of the new panchromatic film. In consequence, the arc is as efficient as ever, and has one advantage left over the incandescent. It may, by simply changing carbons, be used with either kind of emulsion. On the other hand, those who for one reason or another do not care to operate the open-flame arc may have full freedom in making their films by the use of the familiar incandescent.

The panchromatic film promises much for the amateur, and it is to be hoped that this promise will be fulfilled; but at the present time we must confess that the ultimate fate of the panchromatic film hangs in the balance. In professional work the panchromatic is established firmly—to the infinite advantage of the films produced. Let us hope that it may prove as successful in the amateur field, and that we may have available panchromatic emulsions in both negative and reversal films!

Screen-Tints

THE use of some type of filtering-system for giving color to the projected motion-picture, rather than the use of dye-tinting or the use of colored bases, seems to be firmly established. Perhaps this is for the best, as considerable experience is required to properly choose the tint for a scene, more particularly when such tint must be chosen before the scene is seen upon the screen, as must be done when instructing the laboratory regarding printing.

Two filter systems, the American Ciné Colorator and the Filmo filters, have been described in this department. To these has been added the Koloray. The Koloray is novel in many respects. Instead of the usual filters set consecutively, it consists of a disc, not unlike the professional spotlight "color-wheels". Anyone who has tried to project an image through the usual color-wheel knows the difficulties encountered. The Koloray overcomes these difficulties by using a special colored optical glass for the individual filters. Five of these, one each of red, blue, green, golden, and clear comprise the wheel. Each adjacent pair of colored sectors are separated by a narrow aluminum band. The wheel is placed from four to six inches in front of the lens, and is supported by a shaft which is in turn attached to a clamp-ring supported by the lens-jacket.

The colors are remarkably transparent, giving a clear tint with little intensification of the shadows, so that any film may be projected with them. However, most novel effects in coloration may be obtained. The red and green filters are adjacent. If the dividing bar be placed squarely in the center of the path of the light-ray, while projecting a landscape, the sky will be red, toning down into pink, salmon, and golden yellow, and then this yellow merges into the green which covers the foreground. On water-scenes the green and blue are used in a similar manner, and the transparent and blue together give a remarkable twilight effect with a suitable subject. These effects arouse the enthusiasm of hardened amateurs.

There is one effect, obtained with all types of projection-filters, which deserves some explanation. In projection through a filter we have three gradations: the dense shadow, which is black in any untoned picture; the halftones, which are a mixture of the filter-color and photo-gray; and the highlights, which are pure filter-color.

To the eye, however, owing to certain well-known color-contrast effects, the shadows appear to be of the deepest shade of the filter-color, the halftones seem to be pure filter-color, and the highlights appear to be white! Although hardly believable, project a contrasty scene through a color-filter, and then ask the members of the audience the color of the highlights!

Each projector should be equipped with some kind of color-filter, as this adds considerably to the variety of any film-program.

Kodak Exhibition at Atlantic City, N.J.

THE Eastman Kodak Company today joined the array of manufacturers whose products are before the eyes of the visiting world on the board walk at Atlantic City, N.J., when a photographic exhibition-room and store was opened in the same block with the Hotel Traymore. Exhibits already here include General Motors, Victor Talking Machine, General Electric, Westinghouse Electric, Underwood Typewriter, DuPont, Brunswick-Panatrope, and the Crane Company.

The Kodak exhibit will contain a large collection of photographic art, a home-movie parlor for demonstrations twice daily, and photographic and amateur movie apparatus of all varieties. In addition, there will be a developing-service for some of the thousands of films exposed on the beach. W. F. Chipman, Jr., is manager of the new exhibition.

Albert S. Howell Honored by Franklin Institute

ALBERT S. HOWELL, chief engineer of the Bell & Howell Company, was awarded the Wetherill medal, on May 16, by the Franklin Institute in Philadelphia. The Wetherill award is for outstanding discovery, invention, or development in physical science. This distinction was conferred upon Mr. Howell for the development of motion-picture cameras and projectors adaptable to the amateur. As chief engineer of the Bell & Howell Company, Mr. Howell has been responsible for the designing of the filmo cameras and projector—the work which entitled him to this high award.

Fifteen other men noted for scientific achievements in widely varying fields were presented with medals by the Franklin Institute in the same ceremony. Henry Ford, "in consideration of his rare inventive ability and power of organisation, by means of which he was able to effect high-speed production of automobiles", received the Cresson medal.

Dr. Charles F. Brush, a seventy-nine-year-old inventor, was awarded a medal for his achievement in inventing the arc light. Others to receive Cresson medals were Charles L. Lawrence, for his development of the air-cooled motor; Vladimir Karpetoff of Cornell University, for instruments for the mechanical calculation of magnetic and electrical constants of an electrical transmitting line; and Gustaf W. Elmen of the Bell Telephone Laboratories, Inc., for the invention of permalloy, a new alloy one hundred times more magnetic than iron.

William E. Taylor received the Potts medal for the development of pyrex, a heat-resisting glass. Frank E. Ross of Yerkes Observatory received the Wetherill medal for designing wide-angle photographic lenses which increase one hundred times the astronomical area that can be photographed.

Albert S. Howell has been active in the Bell & Howell Company since its organisation in 1907, and is busy constantly designing new equipment and improving previous equipment for the professional motion-picture industry and for the rapidly growing number of those who make their own movies.

The Dremophot for Filmo 75

We had previous occasion to comment very favorably upon the usefulness of the Drem Exposure-Meters, and have found our investigation confirmed by many users. The advent of the remarkable Bell & Howell Filmo 75 caused us to ascertain whether the Drem Products Corporation's Dremophot, which enjoyed such marked success for use with the Filmo 70, will also be made applicable to the new Filmo 75.

Now we are in a position to inform our readers that the Dremophot will give the proper diaphragm-opening and, therefore, correct exposure under all conditions for both the Filmo 70 and the Filmo 75. A detailed description is contemplated in a later issue.

Goerz Reflex Focuser for Filmo and Victor

We are informed by the C. P. Goerz American Optical Company, 317 East 34th Street, New York City, that the Goerz Reflex Focuser for Filmo and Victor cameras is now made so that the Cooke Standard 4-inch F/4.5 and 6-inch F/4.5 lenses, and Dallmeyer lenses of equal focusing length, may be fitted and used, as well as all the Goerz lenses from 3-inch focus up. Further particulars may be obtained from the manufacturers.

Keep Your Eye on These Items

What is the fastest lens available for 16mm. cameras? F/1.5? Wrong. Watch Photo-Era Magazine for the latest developments in ciné-equipment.

Will a 16mm. camera of about 35 feet capacity appeal to the amateur, due to smaller size, less weight, shorter photo-finishing time, and similar considerations? Some surprising developments along this line will be discussed in an early issue.

Colored movies for the amateur are coming. Do we want them? Readers of Photo-Era Magazine will be given the whole story.

Aërial Photographic Projects for U. S. Geological Survey

Two independent aërial survey detachments were organised last summer, in conformity with a request of the Secretary of the Interior, for the accomplishment of certain United States Geological Survey projects. An official report was recently submitted to the Chief of Air Corps covering the activities of these two detachments, from which it is noted that a total area of 11,870 square miles was photographed.

Aërial Survey Detachment No. 1 operated between August 1 and November 12, 1927. Lieut. H. K. Baisley was in command of the detachment until September 23, when he was relieved by Lieut. A. Y. Smith. The photographer with this detachment, Technical Sergeant Arthur Stolte, 21st Photo Section, being an airplane mechanic also, performed the duties of crew chief. The work of the detachment during the above-mentioned period consisted of making tri-lens photographs for the use of the United States Geological Survey in preparing maps. The territory photographed comprised 1,800 square miles in Northern Maine, 2,300 square miles in Western Maine, 1,500 square miles in Northern New Hampshire, and 1,900 square miles in Northern Vermont, a total of 7,500 square miles.

The requirements of the United States Geological Survey were that the above areas be photographed with the Bagley Tri-Lens camera to a scale of approximately 1/20,000, with an overlap of 60 per cent. in the line of flight and 50 per cent. side overlap on parallel lines of flight, with the camera crabbed* about fifteen degrees from the line of flight. Instructions were later received to increase the side overlap of 60 per cent. in New Hampshire and Vermont on account of the mountainous nature of the country.

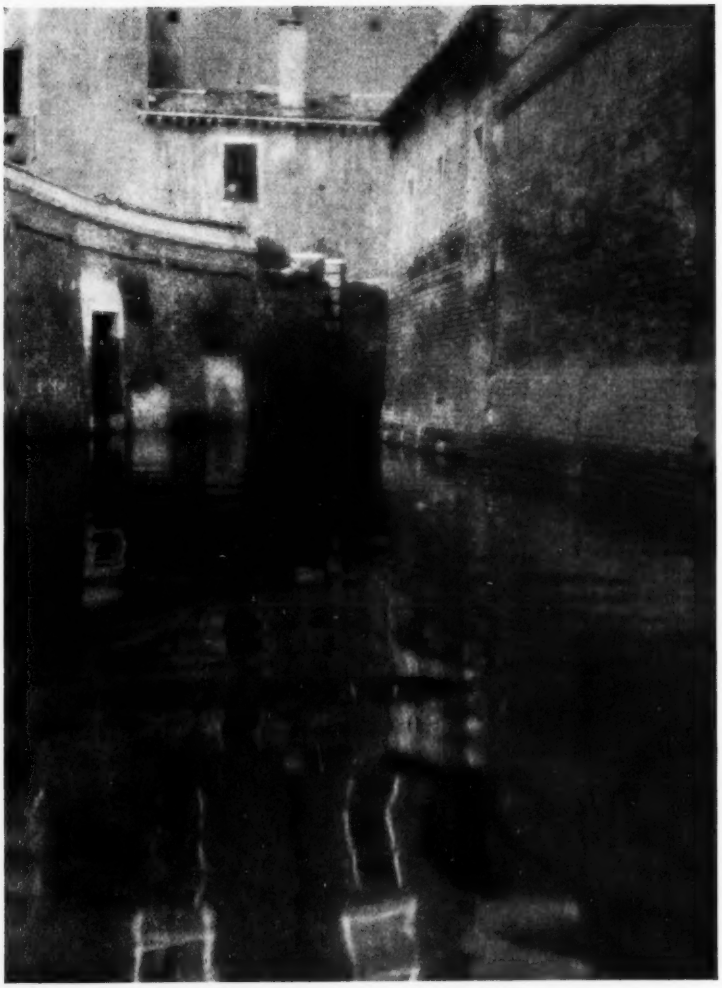
In the Maine project, August 5 to September 15, a smooth, well-drained field, situated three- and one-half miles west of the town of Van Buren, Maine, was used as the base of operations. A number of rock-piles proved to be the only bad feature of this field, necessitating care in landing and taking off. The report states that the weather-conditons in Maine were slightly above average, there being four days during which two rolls of film were exposed. In a summary subsequently given, it appears that during the forty-two days the detachment was on duty at the base of operations in Maine, it rained exactly half the time—twenty-one days. Aside from the four cloudless days, there were five days which were cloudless for three hours or more between 7 A.M. and 5 P.M., and twelve days during which it was cloudy all day.

Lancaster, N.H., was used as the base of operations in New Hampshire and Vermont. The landing-field is situated two miles north of Lancaster and adjoins the north side of the fair grounds. It is 1,300 feet long east and west, but only 120 feet wide. High trees at the east end prohibit taking off in that direction, but the prevailing wind is from the west. This field has not been cultivated for some time, and has a good surface save for old furrows which sometimes hold water.

The weather-conditions in New Hampshire were below average, not a single day being encountered which was completely free of clouds. Additional difficulty was caused by the mountainous terrain. Vertical air-currents were encountered at altitudes as great as 1,300 feet, and occasionally they were of greater velocity than the maximum rate of climb of the airplane. During the month of October the low angle of the sun in conjunction with the height of the mountains caused some areas to be shaded even during mid-day. In the forty-three days which were consumed in this project—September 25 to November 6—only five days were cloudless, for some three hours, between 7 A.M. and 5 P.M. During the remaining thirty-eight days, eight were rainy and thirty were entirely cloudy.

In the Maine project thirteen successful flights were made for a total flying-time of thirty-three hours and twenty-five minutes. Two flights, totaling an hour and twenty minutes, were abandoned on account of cloudy conditions. In the New Hampshire-Vermont project, four successful flights were made, totaling twelve hours and twenty minutes, and six unsuccessful flights totaling six hours and five minutes. Four flights were abandoned on account of clouds, and two because of loss of altitude. Altogether, seventeen and a half rolls of films were exposed. Poor atmospheric conditions spoiled one-half of a roll, and it was re-photographed. The number of prints made totalled 9,220; and the cost of the project, including gasoline and oil, photographic material, and expenses of pilot and photographer, amounted to $9,424.47.

*To compensate for cross-winds, the airplane is headed at a certain angle away from the true course of flight, the camera, however, being pointed in the true direction.—Editor.



VENETIAN WATERS
DR. MAX THOREK